CAPITAL IMPROVEMENTS PLAN

FY 2013-FY2018

NORTH HAMPTON, NEW HAMPSHIRE

Prepared by the North Hampton Capital Improvements Committee:

Phil Wilson, Chair & Select Board Representative
Anne Ambrogi, School Board Representative
Rich Goeselt, Resident Member - Budget Committee Nominee
Peter Philbrook, Resident Member – Select Board Nominee
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Steve Fournier, Town Administrator & Staff Support
Tom McCormick, Town Accountant

With Assistance from:

North Hampton Public Library Trustees & Staff
Municipal Department Heads & Staff
North Hampton School Board & Staff
Tom McCormick, Town Accountant

Approved by Unanimous Vote of the CIP Committee on April 27, 2012, for Presentation to the Following:

North Hampton Select Board
North Hampton Municipal Budget Committee
North Hampton School Board
North Hampton Library Trustees and Staff

This Report Is Intended for Use in the FY2014 Budget Cycle and As a Template for Future CIP Committees.

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SECTION I. Introduction

New Hampshire RSA §674:5-7 provides the legislative authorization and purpose for preparing a municipal Capital Improvements Plan ("CIP"). Undertaking a CIP can be done only if a municipality has an approved Master Plan and after the local legislative body grants authorization.

NHRSA §674:5 states:

Authorization. – In a municipality where the planning board has adopted a master plan, the local legislative body may authorize the planning board to prepare and amend a recommended program of municipal capital improvement projects projected over a period of at least 6 years. As an alternative, the legislative body may authorize the governing body of a municipality to appoint a capital improvement program committee, which shall include at least one member of the planning board and may include but not be limited to other members of the planning board, the budget committee, or the town or city governing body, to prepare and amend a recommended program of municipal capital improvement projects projected over a period of at least 6 years. The capital improvements program may encompass major projects being currently undertaken or future projects to be undertaken with federal, state, county and other public funds. The sole purpose and effect of the capital improvements program shall be to aid the mayor or selectmen and the budget committee in their consideration of the annual budget.

North Hampton first adopted a Master Plan in 1967. The first CIP Committee was created as a subcommittee of the Planning Board by a vote of the residents of North Hampton at Town Meeting in March of 1988.

At Town Meeting in 2010 the legislative body voted to create a Capital Improvement Program ("CIP") Committee that was independent of the Planning Board and that was composed of one appointed member from each of the following Boards: Select Board, Budget Committee, Planning Board, and School Board. In addition the Select Board, Budget Committee, and Planning Board, were each authorized to appoint one member at large from residents of the Town.

The CIP Committee responsible for this CIP was made up of the following members, who were nominated by the Boards indicated after their names:

Anne Ambrogi, School Board Representative
Rich Goeselt, Budget Committee Nominee & Resident Member
Peter Philbrook, Select Board Nominee & Resident Member
Laurel Pohl, Planning Board Representative
Richard Stanton, Budget Committee Representative
Cynthia Swank, Planning Board Nominee & Resident Member
Phil Wilson, Chair & Select Board Representative

Throughout this year's planning process, the CIP Committee was also assisted and given administrative support by:

Steve Fournier, Town Administrator
Tom McCormick, Town Accountant

The Committee met 15 times during the period September 2011 through 27 April 2012. Municipal department heads, the Library Trustees, and the North Hampton School Board submitted capital improvement requests. All requests from these entities were reviewed, questioned, discussed with the individuals responsible for them, evaluated, categorized, and prioritized. Each request was assigned a category using the following

criteria (from most important to least important): Public health or safety need ("S"), urgent to preserve asset(s) ("U"), needed to protect asset(s) ("P"). In a small number of cases the Committee recommended a change in the timing of a specific request.

Each request was prioritized from 1 to 37 – a total of 37 requests was considered. Hence, the number representing the priority of each project must be considered in the context of the year in which it is requested. For example: The lowest priority project in FY 2012 – FY 2013 ("11") is prioritized immediately above the highest ranked project in FY 2013 – FY 2014 ("12").

After this part of the process was completed, the Committee created a *pro forma* schedule of costs for each capital expenditure associated with the CIP by entity and fiscal year, including both the cost of the project as it would be proposed to the legislative body and the annual cost of a likely funding method for each project – e.g., annual bond amortization cost, expenditure from a capital reserve fund, or appropriation for one-time funding from taxation.

The CIP that follows consists of a schedule that shows the requests of each entity by fiscal year, the priority that each request was given by the Committee, the cost of each, and the cost per fiscal year assuming the funding mechanism the Committee deemed most likely.

Early on, the Committee decided to handle the Warren Street Architects proposals about renovation and new construction of buildings in the Municipal Campus as an exception to this basic process. The Town Administrator submitted projects derived from the Warren Street proposals in two forms: 1) as individual capital requests from departments whose facilities were part of the Warren Street proposals and 2) as an aggregate request for the entire Municipal Campus.

The Committee decided to review the Municipal Campus as one integrated project – albeit costly and likely to be phased – because parts of the project were interrelated and dependent upon each other with respect to timing. For example: The Committee recognized that the first decision that had to be made was whether the Library Trustees would propose to build a new library building or to expand and renovate the existing structure. If the Trustees elected to propose a new building, a decision would have to be made about whether the Homestead Property, the vacant lot adjacent to the current Library, would be available for that new building.

The proposal for a new location for Town Administration would depend on whether the library expanded and renovated the existing Library or vacated it. In the latter case Town Administration could propose to move into the vacated library building or to raze that building and construct a new one for offices. Timing of proposals to expand and renovate the Police Department and Fire/EMS Department would be dependent on actions taken to relocate Town Administration.

When the Committee began discussing municipal facilities, there was no clear process or timetable for reaching decisions about this expensive and complex project, in spite of the fact that it was clearly both the largest and most critical capital-planning project facing the Town in the foreseeable future. Consequently, the Committee resolved to make an effort to sort out this project by creating and recommending a *pro forma*

timetable for critical decisions and actions needed to bring relevant questions to the legislative body for decisions and actions.

The Committee also recognized that over the last 15 or so years the Town and various entities in the Town have commissioned or themselves conducted a variety of studies to develop recommendations about how to deal with the distinct issues with respect to municipal facilities. While nobody on the Committee wanted to commission yet another study of the Municipal Campus, the Committee decided to engage an expert to advise the Town about the collective import of all the data, information and opinions that had been developed over the years.

With approval from the Select Board the Committee engaged Dr. Victor Azzi to conduct an assessment of all the information available and to provide his recommendations. Dr Azzi is an architect and civil engineer from Rye who has had decades of experience with these kinds of matters in private practice, for municipalities and at the University of New Hampshire.

The Committee's recommendations about the Municipal Campus take into account Dr. Azzi's report along with the Committee's own deliberations about this matter. The Municipal Campus issue comprises the final section of this CIP, and Dr. Azzi's report is attached as Appendix 1.

The CIP must have the authorization of the local legislative body, but its purpose is entirely advisory to the Select Board, Budget Committee, and the legislative body. The document is structured to provide a six-year program of recommended capital projects and expenditures.

In the body of this CIP a section is devoted to each of the following:

- FY2013-FY2018 Capital Requests by Year
- Fire/EMS Department
- Police Department
- Public Works/ Highway Department
- North Hampton School
- Municipal Campus/Library

SECTION II. FY 2013-FY2018 Schedule of All Capital Requests

Schedule II.1 on the following two pages lists in priority order all capital requests received and assessed by the CIP Committee. In effect, this schedule summarizes the entire CIP for the period FY 2013-FY2018.

The next-to-last row on the schedule shows the aggregate cost of capital decisions planned in each fiscal year, and the bottom lines shows the estimated annual cost of the CIP based on the Committee's opinion of the most likely funding mechanisms that will be used over the period of this plan for each request.

Because annual costs are shown only for the years covered by this CIP, it is important to note that costs may be incurred for a number of years beyond FY2018, depending on the funding mechanisms used. For example: For any project that is funded by means of a 30-years bond, amortization will require 30 years.

In Schedule II.1 the following superscripts after projects indicate the funding assumption that was used to calculate the estimate of the annual tax impact of each item in each year:

[1]Warrant Article appropriating funds by taxation in the fiscal year in question.
[2]Bond (20-30 years term) approved by Warrant Article in the fiscal year of project approval.
[3]Expenditure from an Appropriate Capital Reserve Fund approved by Warrant Article in the fiscal year of project approval.
[4]Funding mechanism to be determined.

Schedule II.1
All Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
NHS	*Reshingle Gable/Hip Roof*	*1*	*U*	$20,000					
NHS	*Cell Phone Repeater*	*2*	*S*	$35,000					
TA	*Renovate Exterior - Clerk/Tax Collector Building*[1]	*3*	*P*	$110,000					
PD	*ReplacePolice Cruiser*[1]	*4*	*P*	$36,000					
PWD	*Shim & overlay ~ 3 Miles of Roadway*[1]	*5*	*P*	$265,000					
FD	*Refurbish Engine 2*[1]	*6*	*P*	$50,000					
PWD	*Replace F550 Dump Truck with F650*[1]	*7*	*P*	$85,000					
PWD	*Seal Pavement*	*8*	*P*	*$30,000*					
NHS	*Main & Gym Lobby Entrances*	*9*	*SP*	*$15,000*					
TA	*Town Wide Revaluation*[1]	*10*	*U*	$80,000					
NHS	*Robinson Property Acquisition*	*11*	*P*	$399,500					
FD	*Replace Ambulance*[3]	*12*	*SU*		$200,000				
FD	*Replace Defibrillator*[4]	*13*	*S*		$35,000				
PD	*Replace 2 Police Cruisers*[1]	*14*	*P*		$72,000				
NHS	*Replace Ext Windows - Shades*	*15*	*P*		$348,000				
TA	*Town Hall Exterior Renovations*[1]	*16*	*P*		$150,000				
PWD	*Reconstruct South & Dearborn Roads - I-95 to Exeter Rd.*[1]	*17*	*P*		$140,000				
PWD	*Replace Six Wheel Dump Truck w/ Plow & Wing*[1]	*18*	*P*		$175,000				
NHS	*Replace Kitchen Equipment*[4]	*19*	*U*		$20,000				
NHS	*Greenhouse*[4]	*20*	*N/A*		*$25,000*				

Schedule II.1 (cont.)

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
FD	*Replace Ladder Truck*[3]	*21*	*P*			$200,000			
PWD	*Shim & overlay ~ 2.6 Miles of Road*[1]	*22*	*P*			$280,000			
PD	*Replace Police Cruiser*[1]	*23*	*P*			$36,000			
TA	*Replace Computer Server*[1]	*24*	*P*			$30,000			
NHS	*Upgrade Automation System*	*25*	*P*			$30,000			
TA	*Dearborn Park Renovation (Pickle Ball, Building, Playground)*[1]	*26*	*P*			$51,000			
MC	*New Library*[2]	*27*	*P*				$3,000,000		
PWD	*Replace F550 Med. Duty Dump Truck*[1]	*28*	*P*				$100,000		
PD	*Replace 2 Police Cruisers*[1]	*29*	*P*				$72,000		
MC	*Construct/Renovate Town Offices*[2]	*30*	*P*					$1,500,000	
PD	*Replace Police Cruiser*[1]	*31*	*P*					$32,000	
MC	*Renovate Safety Building*[2]	*32*	*P*						$2,000,000
NHS	*Gym Roof Replacement*	*33*	*P*						$40,000
PWD	*Replace Six Wheel Dump Truck with Plow & Wing*[1]	*34*	*P*						$200,000
PD	*Replace 2 Police Cruisers*[1]	*35*	*P*						$72,000
NHS	*Additional Storage Shed*	*36*	*P*						$30,000
TA	*Acquire Land Next to Dearborn Park*	*37*	*N/A*						
	Total Cost of Projects by Year of Approval			**$1,105,500**	**$1,165,000**	**$627,000**	**$3,172,000**	**$1,532,000**	**$2,342,000**
	Impact on Taxation with Funding Assumptions			**$824,500**	**$798,000**	**$467,000**	**$169,000**	**$300,000**	**$545,000**

SECTION III. Fire/EMS Department Capital Requests

A. *Vehicles and Equipment Requests*

Schedule III.1 on the following page provides all Capital Improvement requests from the Fire/EMS Department for the period FY2013 – FY2018. The total costs of these requests, by year, are shown in the last row of the table.

The Committee recommends that the Town fund these requests.

The Committee recommends that the Town fund these requests. Vehicles are being replaced according to the Replacement Schedule in the next subsection. Replacing failing or obsolete vehicles before they become irreparable or before they fail at a time of emergency is responsible management.

The Fire Chief tracks maintenance and repair costs for each vehicle and recommends refurbishment or replacement, as appropriate and when necessary to ensure the effective operation of the Department. (See Schedule III.2.) Refurbishment, as was requested for Engine 2 in FY 2013, is an important technique for extending the useful life of certain vehicles for a decade or more at a cost that is far less than replacing the vehicle.

The 2004 Marque ambulance was scheduled for replacement in FY2012. However, the urgency of replacing the 1987 FMC pumper took precedence. Recently, maintenance and repair problems with this ambulance have become costly in terms of both the costs of repairs and the lost revenue while the vehicle is out of service.

To the extent possible fees from ambulance runs are the source funding for the Town's Capital Reserve Fund from which Fire/EMS Department vehicles are purchased. Our recent experience with expensive repair costs for the ambulance illustrates the importance of following a vehicle replacement schedule that preempts such equipment failures.

The Fire Chief also takes advantage of replacement policies of other municipalities in which accelerated replacement schedules provide opportunities for North Hampton to acquire used vehicles that are in excellent condition for discounted prices. This technique may be employed when the E-One ladder truck is replaced.

1997 Central States Pumper Engine 2 – Scheduled to be Refurbished FY 2012 – 13

2004 Marque Ambulance - Scheduled to be Replaced FY2013 – 14

1984 E- One Ladder Truck – Scheduled to be Replaced FY 2014-15

Schedule III.1
Fire Department/EMS Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
FD	*Refurbish Engine 2*	*6*	*P*	$50,000					
FD	*Replace Ambulance*	*12*	*SU*		$200,000				
FD	*Replace Defibrillator*	*13*	*S*		$35,000				
FD	*Replace Ladder Truck*	*21*	*P*			$200,000			
	TOTAL			**$50,000**	**$235,000**	**$200,000**	**$-**	**$-**	**$-**

B. *Fire/EMS Department Vehicles and Equipment Replacement Schedule*

Schedule III.2

Vehicle or Equipment Type	Year	Make	Description	Miles	Pump Hours	Fuel	Estimated Replacement Cost (2012 $s)	VIN #	Due to Replace (FY)
Pumper	1987	FMC	Pumper	23,623	2,559		$480,000		2012
Pumper	1997	Central States	Pumper	33,600	4,083		$50,000		2013
Ambulance	2004	Marque	Ambulance	51,373	4,040		$200,000		2014
Ladder	1984	E-One	Ladder	61,965	445		$250,000 - $600,000		2015
	1997	Central States		33,600	4,083		$545,000		2017
Pumper - Tanker	2000		Pumper - Tanker	7,750	716		$300,000		2020
Pickup	1996	Ford	F250	61,512			$45,000		TBD
Utility Vehicle	2007	Chevrolet	Tahoe SUV	30,812			$55,000		TBD
Pickup	2011	Chevrolet	HD2500	4,564			$50,000		TBD

SECTION IV. Police Department Capital Requests

A. *Vehicles and Equipment Requests*

For several years, the Town has followed the practice of replacing police cruisers on a three-year' cycle. This practice makes sense for several reasons:

- Warranties on cruisers typically expire after three years.
- Cruisers typically have the equivalent of 100,000 miles' service after three years.
- Major maintenance and repair costs typically begin to occur and rise at 100,000 miles of service.
- Reliability and durability are important factors in ensuring effective and timely emergency response.

The Town makes good use of "retired" cruisers that are still in operating condition. The Building Inspector/Code Enforcement Officer in his routine work has long used them. They are also available for use on other Town business by Town employees when appropriate. When they are no longer useful, they are sold.

Currently, a transition is necessary in the acquisition of cruisers. Ford, whose "Crown Victoria" model has long been the standard platform for North Hampton and neighboring communities, is discontinuing this model and is offering a "Taurus" platform as a replacement.

While this transition may appear insignificant, it in fact increases the cost of new cruisers. Specialized equipment that has been used in previous years and could have been recycled from an older Crown Victoria cruiser to prepare a newer one for service will not fit the Taurus model. Hence, new lights, cages, etc., will be required when each new cruiser is prepared for service.

Schedule IV.1 shows Capital Improvement requests from the Police Department for FY2013 – FY2018. The bottom row shows the total cost of these requests by year.

Schedule IV.2 provides the Vehicle Replacement Schedule for the Police Department.

North Hampton Police Department Fleet – Spring 2012

Schedule IV.1
Police Department Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
PD	*Replace Police Cruiser*	*4*	*P*	$36,000					
PD	*Replace 2 Police Cruisers*	*14*	*P*		$72,000				
PD	*Replace Police Cruiser*	*23*	*P*			$36,000			
PD	*Replace 2 Police Cruisers*	*29*	*P*				$72,000		
PD	*Replace Police Cruiser*	*31*	*P*					$32,000	
PD	*Replace 2 Police Cruisers*	*35*	*P*						$72,000
	TOTAL			**$36,000**	**$72,000**	**$36,000**	**$72,000**	**$32,000**	**$72,000**

B. *Police Department Vehicles & Equipment Replacement Schedule*

Schedule IV.2

Vehicle	Year	Make	Model	Miles	Hours	Total Miles Equivalent[1]	Original Cost New	VIN #	Due to Replace
Cruiser #119	2011	Ford	Crown Victoria	1,032	8	1,296			
Cruiser #118	2010	Ford	Crown Victoria	19,389	537	37,110			
Cruiser #117	2010	Ford	Crown Victoria	44,791	1,398	90,925			
Cruiser #115	2009	Ford	Crown Victoria	41,889	1,354	86,571			
Low Profile	2008	Ford	Crown Victoria	30,295	434	44,617			
Cruiser #113	2007	Ford	Crown Victoria	35,526	1,383	81,165			
Utility #109[2]	2004	Ford	Explorer 4x4	39,676	NA	39,676			

[1]"Total Miles Equivalent" = Miles + (Hours*33 miles/Idle hours)

[2]Utility #109 will be used by the Building Inspector/Code Enforcement Officer if the Warrant Article authorizing the purchase of a new cruiser or utility vehicle is approved for FY2013.

SECTION V. Public Works/Highway Department Capital Requests

The Public Works/Highway Department submits capital requests of three kinds:

- Requests for vehicles necessary for plowing snow and maintaining roads.
- Requests for other types of equipment necessary for mowing, clearing brush and fallen trees, and maintaining Town buildings and grounds.
- Requests for resurfacing or reconstructing Town-owned roads.

Schedule V.1 shows the Department's capital requests of all types over the period FY 2013 – FY 2018. The annual total cost of these requests is shown in the last row of the schedule.

Schedule V.2 provides the Department's vehicle replacement schedule. As with the Fire/EMS and Police Departments, it is important that these vehicle and equipment assets are managed in a cost-effective and prudent way to ensure that they are safe, fully functional, and reliable in the case of emergencies, including weather events for which the Town must be prepared. Tracking age and maintenance costs of each vehicle or piece of equipment is an important part of understanding how reliable they are and when replacement may be appropriate. It is prudent to replace unreliable or aging equipment before it fails at a time of need or in a situation that could result in injury to the operator or others.

The Director of the Public Works Department has prepared the "Road Condition Report & Road Maintenance Plan" that is attached to this CIP as Appendix A. This document includes the Department's proposed schedule for resurfacing or reconstructing Town-owned roads. Scheduling maintenance procedures and resurfacing forestalls the need to reconstruct roads, and routine maintenance or resurfacing is both less costly and less disruptive to residents than reconstruction. Establishing a plan for road maintenance is an important step in managing capital expenditures for work on roads in a manner that helps avoid spikes in the tax rate. Future CIP Committees, therefore, should use this document in reviewing annual capital requests for work to maintain, repair, or improve roads in Town.

The Director of the Public Works Department has also worked with UNH T^2 from the University of New Hampshire to assess the condition of Town roads, to propose when roads need to be resurfaced or reconstructed, and to develop a schedule that will plan maintenance that maximizes the life expectancy of Town-owned roads. This plan – "North Hampton: Road Surface Management System" (February, 2012) -- provides an additional resource for the PWD Director and information for the CIP Committee, Select Board and Municipal Budget Committee in considering capital requests from the Public Works Department for road work. This report is attached as Appendix B.

In view of the annual cost difference between the Public Works Department and the UNH T^2 programs, the Committee believes the program set forth by the Public Works Department has a more realistic chance of being implemented. The UNH T^2 program calls for spending of approximately $3.5 million in repairs and maintenance in the first five years of the plan, which is not the best allocation of the limited resources of the Town and would likely not be approved at Town Meeting. In contrast, the recommendation of the Public Works Department calls for approximately $1 million in

spending over the same period. We are confident that the Department's recommendation will ensure that North Hampton's roads will be safe and adequate for the Town's needs.

Ford F550 Dump Truck – Scheduled for Replacement FY2012 – 13

1994 International 4900 Six-Wheel Dump Truck –
Scheduled to be Replaced FY2013 - 14

1999 F550 Medium Duty Dump Truck - Scheduled for Replacement FY2015- 16

1999 International 4900 Six-Wheel Dump Truck –
Scheduled for Replacement FY2017 - 18

Public Works/Highway Department Capital Requests FY 2013 – FY 2018

Schedule V.1
Public Works/Highway Department Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
PWD	*Shim & overlay ~ 3 Miles of Roadway*	*5*	*P*	$265,000					
PWD	*Replace F550 Dump Truck with F650*	*7*	*P*	$85,000					
PWD	*Seal Pavement*	*8*	*P*	*$30,000*					
PWD	*Reconstruct South & Dearborn Roads - I-95 to Exeter Rd.*	*17*	*P*		$140,000				
PWD	*Replace Six Wheel Dump Truck w/ Plow & Wing*	*18*	*P*		$175,000				
PWD	*Shim & overlay ~ 2.6 Miles of Road*	*22*	*P*			$280,000			
PWD	*Replace F550 Med. Duty Dump Truck*	*28*	*P*				$100,000		
PWD	*Replace Six Wheel Dump Truck with Plow & Wing*	*34*	*P*						$200,000
	TOTAL			**$380,000**	**$315,000**	**$280,000**	**$100,000**	**$-**	**$200,000**

A. *Vehicles and Equipment Replacement Schedule*

Schedule V.2
Public Works/Highway Department Vehicle and Equipment Replacement Schedule

Vehicle or Equipment Type	Year	Make	Description	Miles	Hours	Fuel	Original Cost New	VIN #	Due to Replace
One-ton Medium Duty Dump Trucks	2011	Ford	F350 4x4 Pickup #1	7,870		DS	$52,000	1FT8X3BTXBEB90306	July-21
	2007	Ford	F550 4x4 Pickup #6	48,139		DS	$42,585	1FDAF57P57EA51215	July-14
	2003	Ford	F550 4x4 Pickup #2	61,413		DS	$34,500	1FDAF57P23ED34715	July-12
Heavy Dump Trucks	1999	International	4900 Dump P/W/S #3	59,511		DS	$76,000	1HTSDAAR8XH649091	July-17
	1994	International	4900 Dump #4	51,277		DS	$62,000	1HTSDAARXSH643267	July-13
Backhoe	1998	Case 580L	Backhoe #5		3,367	DS	$60,000	JJG0243155	July-23
Loader	2010	Case 621 E xt	Loader #7		621	DS	$148,000	N9F206778	July-35
Tractor	2004	John Deere 4610	Tractor & Attachments		1,342	DS	$25,000	LV4610H360396	July-24
Trailers	2004	Superior	Utility Trailer				$3,000	4M8UZ10194D002284	July-34
	1988	Corey	Utility Trailer				$2,500	1C92CL194JL308023	July-18
Chipper	2007	Bandit	Model 1590		208	DS	$37,878	1666	July-37
Zero-turn Mower	2004	Husqvarna	23 Hp Mower-Commercial		667	Gas	$6,000	N225668 V#172336VU05	July-09

SECTION VI. Town Administration Capital Requests

Requests for capital improvements from Town Administration cover a wide range of projects from building major maintenance or renovation, to computer equipment acquisitions, to land acquisition for parks and recreation, to construction of storage facilities, to major periodic multi-year projects like the town-wide revaluation required by the State of New Hampshire every five years.

Schedule VI.1 shows the capital requests from Town Administration for FY 2013 – FY 2018. The bottom row shows the annual total cost of these requests.

The Recreation Department submitted a request for funds to purchase property adjacent to Dearborn Park. The Committee decided not to place a cost on this request because the cost cited in the submission was deemed unrealistically low in view of past experience. The Committee also had questions about the suitability of the land for expanding park facilities. The Committee has included this request as the last item in the overall CIP schedule, but recommends no action until more work has been done to ascertain the feasibility of pursuing it for the intended purpose.

Town Clerk - Tax Collector's Office – Scheduled for Renovation FY2012 - 13

Town Clerk - Tax Collector's Office Handicapped Access – Scheduled for Replacement FY2012 – 13

Town Hall Exterior Renovations - Scheduled for FY2013 – 14

Schedule VI.1
Town Administration Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
TA	*Renovate Exterior - Clerk/Tax Collector Building*	*3*	*P*	$110,000					
TA	*Town Wide Revaluation*	*10*	*U*	$80,000					
TA	*Town Hall Exterior Renovations*	*16*	*P*		$150,000				
TA	*Replace Computer Server*	*24*	*P*			$30,000			
TA	*Dearborn Park Renovation (Pickle Ball, Building, Playground)*	*26*	*P*			$51,000			
TA	*Acquire Land Next to Dearborn Park*	*37*	*N/A*						
	TOTAL			**$190,000**	**$150,000**	**$81,000**	**$-**	**$-**	**$-**

SECTION VII. North Hampton School Capital Requests

This year the North Hampton School Board actively contributed to the CIP development process. The CIP Committee Chair and Town Administrator met with the School Board on 21 October 2011, presented information about the CIP Committee's work, and received support from the Board. School Board member Anne Ambrogi represented the School Board on the Committee and helped ensure good coordination and communication between the Board and Committee throughout the process.

As a result, this CIP includes a schedule of capital improvement requests from the School Board that reflects the School's plans and needs and also includes recommendations for some changes from the CIP Committee. For example: The Committee recommended accelerating improvements in the entrances and main lobby of the School and in the kitchen. The Committee also recommended spreading the significant cost of replacing windows over a period of years in order to spread the tax impact over a longer period.

It is, of course, the School Board's prerogative to accept or reject any or all these recommendations, but it was an important step forward in the prudent management of the Town's capital planning to develop this working relationship between municipal and school governance. An integrated CIP gives residents a clearer view of the future of taxes in the Town and a better understanding of the major capital funding issues on which they are likely to asked to vote over a period of six years.

The goal of the CIP Committee is to provide all Town operating entities, including North Hampton School, with an objective and capable forum of concerned residents to assist them in developing reasonable and prudent proposals to meet significant needs that ultimately residents understand and support.

Schedule VII.1 on the next page presents capital requests from North Hampton School for the period FY 2013 – FY 2018. This schedule does not show the distribution of the project to replace windows and shades over four years, but rather, shows this project as submitted by the School Board. Annual total costs of projects are shown in the bottom row of the schedule.

Town Meeting for the school district was held on 13 March 2012. Acquisition of the Robinson property was not approved.

Schedule VII.1
North Hampton School Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
NHS	*Reshingle Gable/Hip Roof*	*1*	*U*	$20,000					
NHS	*Cell Phone Repeater*	*2*	*S*	$35,000					
NHS	*Main & Gym Lobby Entrances*	*9*	*SP*	*$15,000*					
NHS	*Robinson Property Acquisition*	*11*	*P*	$399,500					
NHS	*Replace Ext Windows - Shades*	*15*	*SP*		$348,000				
NHS	*Replace Kitchen Equipment*	*19*	*U*		$20,000				
NHS	*Greenhouse*	*20*	*N/A*		*$25,000*				
NHS	*Upgrade Automation System*	*25*	*P*			$30,000			
NHS	*Gym Roof Replacement*	*33*	*P*						$40,000
NHS	*Additional Storage Shed*	*36*	*P*						$30,000
	TOTAL			**$469,500**	**$393,000**	**$30,000**	**$-**	**$-**	**$70,000**

SECTION VIII. Municipal Campus/Library Capital Requests

North Hampton's Municipal Campus – the Library, Clerk/Tax Collector's Office ("Old Public Library"), Fire/EMS Department facility, Police Department facility, Town Administrative Offices, and the Town Hall – poses the most expensive, difficult, and complex challenge to planning capital improvements for the foreseeable future. Clearly, these facilities represent the most important physical assets of the Town, and maintaining them in good repair is in the best interests of residents.

Functional and efficient facilities are essential to ensure that municipal services are delivered with the quality and timeliness residents expect, to manage operating costs of these facilities, and to provide employees with the environment they need to work comfortably, effectively, and efficiently. Furthermore, the Town must provide facilities that comply with applicable health, safety, and building codes.

Currently, Town facilities are in need of repair, renovation and, perhaps, expansion or replacement. Steps have been taken to bring the Municipal Campus up to an appropriate state. The "Homestead" property immediately west of the Library building and parking lot was purchased for possible expansion. The Town built a new salt shed and garage/office facility for the Public works/Highway Department on Lafayette Road at the entrance to Hampton Airfield. Therefore, the dilapidated and inadequate "lean to" behind the Town office building was razed and parking space was added. Extensive renovations were made to the Town Hall after the building was found to be unsafe, and it is now an attractive site for public meetings, Town Meeting, and even for video recordings and broadcasts of meetings. Yet, even after this work on the Town Hall, much remains to be done on that building.

Between the mid-1990s and today several studies have been commissioned and completed to assess what needs to be done with the Municipal Campus. First, the Library Trustees engaged Dennis Mires, an architect to produce a needs analysis for a new or expanded library. Later Patience Jackson was engaged for a similar purpose. In 2005, when the Planning Board updated the Municipal Facilities and Services Chapter of the Mater Plan, the Long-Range Planning Committee reviewed municipal facilities in detail. The Select Board engaged Municipal Resources, Inc. to conduct studies of the Fire/EMS and Police Department facilities and to recommend how best to provide adequately for those departments. Most recently, the Select Board engaged Warren Street Architects, Inc. to produce plans for the redevelopment of the municipal campus. Yet, no actionable plan has been seriously considered, developed, or adopted.

Because this is the most important issue of capital improvement planning the Town faces, the CIP Committee decided to take the lead in "calling the question." First, the Committee entered into discussions with the Library Trustees because nothing could be done until the Trustees decided whether to propose expanding the Library in place or to propose a new building. The Committee proposed a *pro forma* timetable for decisions to the Trustees, who responded with a more aggressive timetable that included proposing to build a new library on the "Homestead" property, launching a fundraising campaign to

raise approximately half the capital required, and moving into a new building in April of 2015.

The CIP Committee, in Schedule VIII.1 following, has taken a less aggressive approach. However, the initial step in addressing Municipal Campus capital improvements requests is answering questions about the future of the Library. If the Library relocates, then the current Library site is the best location for Town Administration – whether in a renovated building or a new building. Town Administration must relocate, if the Police Department expands within the current facility. The Fire/EMS Department facility is inadequate and failing in various ways that may best be addressed along with renovations to improve Police Department facilities.

Dr. Azzi's analysis, report, and recommendations are included as Appendix I. In sum, they are:

1. The Library should be housed in a new building, built to accommodate the needs of its programming. The building should be built on the town-owned "Homestead Site" in the southwest corner of the Municipal Campus.

2. It is not economically feasible to renovate the current Library Building for the Town Administrative Offices. The facility should be razed and new Town Administrative Offices should be built on this site.

3. The Library and Town Administrative Offices should consider building multistory buildings. This would reduce the size of the footprint of each building, allowing for additional space for expansion in the future.

4. The current location of the Fire and Rescue Department should be renovated and expanded to meet the needs of the Department.

5. The Police Department should be renovated and expanded into the current Town Administrative Offices to meet the future needs of the Department.

6. The current Town Clerk - Tax Collector's Office should be preserved and used for other Town functions.

7. The Town Hall should remain in its current location and continue to be used as a meeting space.

The Committee recommends that next year's CIP Committee spend considerable time reviewing Dr. Azzi's analysis and report. In general, the report was very well received. The Committee strongly recommends that two-story structures, as discussed in the report, should be considered very seriously for reasons related to their potential cost savings and their reduced footprints.

Schedule VIII.1
Municipal Campus/Library Capital Improvement Requests
Ranked by Year and Priority

Entity	Project	Priority	Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18
MC	*New Library*	*27*	*P*				$3,000,000		
MC	*Construct/Renovate Town Offices*	*30*	*P*					$1,500,000	
MC	*Renovate Safety Building.*	*32*	*P*						$2,000,000
	TOTAL			$-	$-	$-	$3,000,000	$1,500,000	$2,000,000

SECTION IX. Signature Page.

Phil Wilson, Chair

Anne Ambrogi, School Board Representative

Rich Goeselt, Resident Member –Budget Committee Nominee

Peter Philbrook, Resident Member – Select Board Nominee

Laurel Pohl, Planning Board Representative

Richard Stanton, Budget Committee Representative

Cynthia Swank, Resident Member – Planning Board Nominee

Steve Fournier, Town Administrator & Staff Support

SECTION X. Appendices and Attachments

A. *"Road Condition Report and Road Maintenance Plan," prepared by the North Hampton Public Works Department (January 2012)*

TOWN OF NORTH HAMPTON, NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS

Road Condition Report & Proposed Road Maintenance Plan
January 2012

Town of North Hampton, New Hampshire
Department of Public Works

The Town of North Hampton has a network of approximately 53 miles of roadways. The North Hampton DPW currently maintains approximately 33 miles of this network. North Hampton roadway assets, which are used by residents, businesses, and visitors to the area, provide a vital contribution to the community and reflect the quality of life in the seacoast area.

The following contains a condition report as well as a proposed road maintenance plan. This plan focuses on the practical aspects of roadway maintenance as well as an estimated cost to complete the proposed work to our roadway infrastructure. This document was developed to begin discussions and planning on future road maintenance and the funding required to implement it. It can be useful in determining budgets and developing capital improvement programs.

The objective of this plan is to stop further deterioration of the road system while providing the opportunity to achieve an overall improvement in the condition of the roadways. It is a comprehensive plan which considers all town maintained roadways. Streets which are not included in this 15 year plan, which have been recently treated or are in excellent condition, shall be treated in the first 5 years of the next maintenance plan.

This maintenance program is designed to be monitored and updated at regular intervals. It can be accelerated or deferred based on need or budgetary constraints.

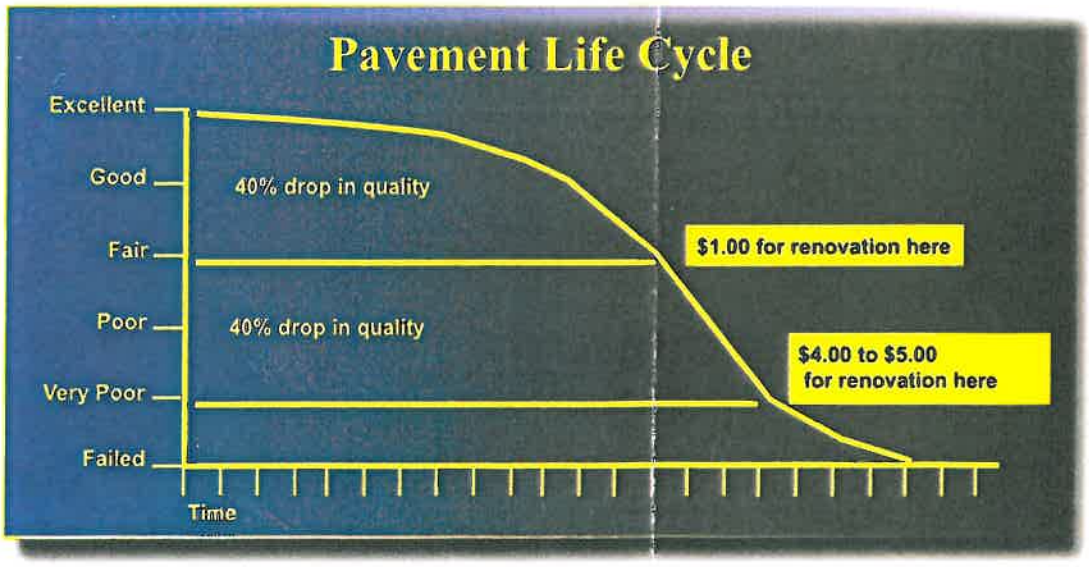
The following is a list of road maintenance options that are commonly used in standard maintenance programs;

A. Bituminous patching and crackseal
B. Bituminous shim and overlay
C. Reclamation
D. Complete reconstruction

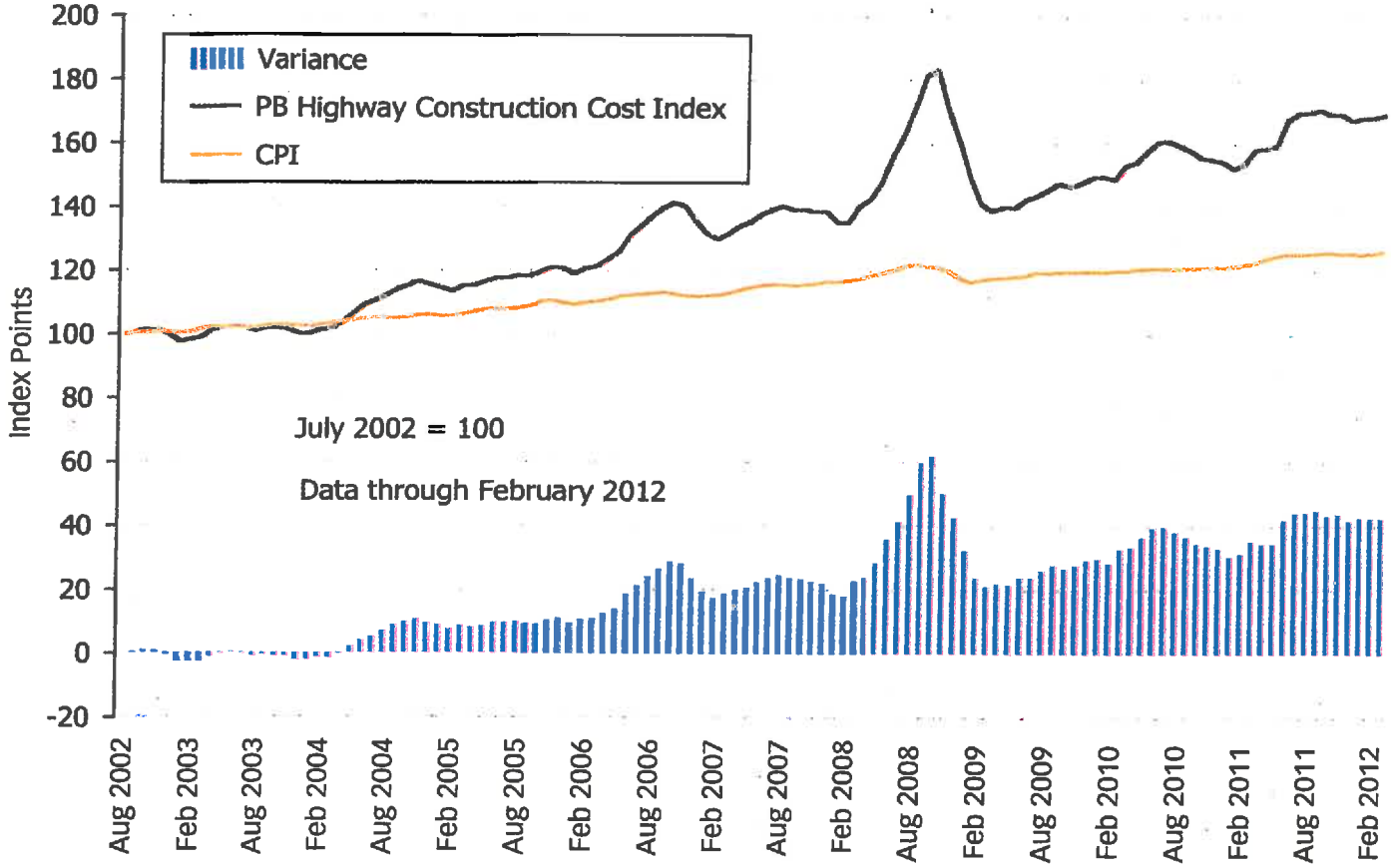
Item A is handled by the DPW as routine maintenance and included in the highway budget. Ninety five percent of the maintenance projects included in this plan are bituminous overlays with the remaining five percent of the plan being reclamation projects. As you can see from the graph below, the cost escalates significantly if a roadway deteriorates from Good to Poor condition and requires reclamation to rehabilitate the roadway.

Asphalt pavement is the most significant factor in cost increases associated with a maintenance program such as this. The cost of asphalt paving has doubled in the last ten years. It's no wonder why municipal and state maintenance programs are falling behind due the fact that the paving dollar goes only half as far. Liquid asphalt and energy costs are volatile and contribute to increases of every aspect of the road maintenance program.

On the following page is an article showing the cost escalation for highway construction over the past ten years. It compares the highway construction cost index to the associated CPI for the same period.



Highway construction cost escalation



Dr. Kumudu Gunasekera and Brad Ship

PB's Highway Construction Cost Index (PB HCCI) increased approximately 0.7 index points, or 0.4%, in the month of February 2012 (compared with January 2012). In the month, asphalt increased 2.77% and was the primary driver for the monthly increase. Year to date the index has grown 0.6% and is 6.9% higher than the February 2011 value.

PB HCCI comprises the following six cost components: construction labor, construction equipment, steel, asphalt and asphalt binder, aggregate and concrete. The resulting index represents average highway-construction costs for the U.S. as a whole. Cost inflation for specific regions, capital programs and projects will vary from this index depending on project types and work mix, as well as the regional or local construction market (including local contractor and material-supplier markets) and contractor margins (which are lower during construction downturns). R&B

March, Roads & Bridges Magazine

North Hampton Road Inventory			Updated:	4/24/12
Measurements				
STREET	**Length**	**Width**	**Area (sy)**	**Miles**
Alden Ave.	1056	30	3520	0.20
Appledore Ave.	2640	28	8213	0.50
Beaumonde Est.	2640	24	7040	0.50
Birch Rd.	3168	20	7040	0.60
Bolters Cove	1056	30	3520	0.20
Boutilier	3168	20	7040	0.60
Bradley La.	3696	24	9856	0.70
Buckskin La.	3696	24	9856	0.70
Causeway Rd.	528	20	1173	0.10
Cedar Rd.	3168	22	7744	0.60
Chapel Rd.	4652	20	10338	0.88
Cherry Rd.	2112	20	4693	0.40
Cotton Farm Rd.	3168	24	8448	0.60
Dearborn Rd.	1056	16	1877	0.20
Deer Run Rd.	3168	22	7744	0.60
Elm Rd.	2112	18	4224	0.40
Evergreen Dr.	2640	24	7040	0.50
Fern Rd.	2640	20	5867	0.50
Garrett Rd.	2640	20	5867	0.50
Glendale Rd.	1056	30	3520	0.20
Goss Rd.	5280	22	12907	1.00
Grandview Terr.	1584	20	3520	0.30
Hampshire	1056	30	3520	0.20
Highlander	3696	22	9035	0.70
Hillside	1056	30	3520	0.20
Juniper Rd.	1584	30	5280	0.30
Kimberly Dr.	1056	30	3520	0.20
Lafayette Terr.	2112	20	4693	0.40
Lovering Rd.	7920	22	19360	1.50
Maple Rd.	3168	20	7040	0.60
Meadowfox	1056	20	2347	0.20
Mill Rd.	7920	22	19360	1.50
New Rd.	2000	22	4889	0.38
North Hill Rd.	420	24	1120	0.08
North Rd. W.	6864	24	18304	1.30
North Rd. E.	3696	24	9856	0.70

Old Locke Rd.	3168	20	7040		0.60
Park Cir.	1560	24	4160		0.30
Pine Rd.	2655	22	6490		0.50
Pond Path	3696	22	9035		0.70
Red Fox Rd.	2112	22	5163		0.40
River Rd.	1584	20	3520		0.30
Rockrimmon	3696	24	9856		0.70
Runnymede	2640	20	5867		0.50
Sea Rd.	1584	20	3520		0.30
Shepherds La.	2112	22	5163		0.40
Ship Rock	4224	22	10325		0.80
South Rd. W.	8448	24	22528		1.60
South Rd. E.	1584	20	3520		0.30
Spruce Meadow	2640	22	6453		0.50
Squier Dr.	5280	24	14080		1.00
Stevens Rd.	1584	30	5280		0.30
Stevens Rd.	1056	30	3520		0.20
Sylvan Rd.	1056	24	2816		0.20
Willow Ave.	3168	18	6336		0.60
Winterberry La.	3696	24	9856		0.70
Woodknoll Dr.	2640	20	5867		0.50
Woodland Rd. N.	7392	22	18069		1.40
Woodland Rd. S.	4224	22	10325		0.80
Woodridge Dr.	1056	30	3520		0.20
			Total Miles	=	32.84

Scale Notes

Importance:	1 = Low	4 = High
Traffic	1 = Low	5 = High

STREET NAME	PAVED WIDTH	LANE WIDTH	Priority	TRAFFIC
Alden Av	30	15	1	2
Appledore Av	28	14	2	1
Beau Monde Drive	24	12	2	1
Birch Rd	16	8	3	4
Boutilier Ln	24	12	2	1
Bolters Cove	30	12	2	1
Bradley Lane	24	12	2	1
Buckskin La.	24	12	2	1
Causeway Rd	16	8	1	3
Cedar Rd	22	11	4	5
Chapel Rd	16	8	3	2
Cherry Rd	18	9	3	3
Cotton Farm Ln	24	12	2	1
Dearborn Rd	14	7	3	1
Deer Run Rd	24	12	2	2
Elm Rd	16	8	3	3
Fern Rd	20	10	3	3
Garrett Rd	24	12	1	1
Glendale Rd	30	15	1	2
Goss Rd	20	10	2	1
Grandview Terr	20	10	2	1
Hampshire Dr	30	15	2	2
Highlander Dr	24	12	2	2
Hillside Rd	30	15	1	2
Juniper Rd	30	15	2	2
Kimberly Dr.	30	15	2	2
Lafayette Ter	20	10	2	3
Lovering Rd	22	11	4	4
Maple Rd	14	7	3	3
Meadow Fox Rd.	20	10	2	1
Mill Rd	18	9	4	4
New Rd	18	9	3	3
North Hill Rd	10	10	4	5
North Rd	18	9	4	4
Old Locke Rd	18	9	3	2
Park Circle	24	12	2	1
Pine Rd	22	11	3	3
Pond Path	24	12	2	2
Red Fox Rd.	22	11	2	1
River Rd	18	9	1	1
Rockrimmon Rd	24	12	2	1
Runnymede Dr	20	10	2	1
Sea Rd	16	8	3	4
Shepherds La	22	11	2	1
Ship Rock Rd	24	12	2	1
South Rd	24	12	4	5
Spruce Meadow Dr	22	11	2	1
Squier Dr.	24	12	2	1
Stevens Rd	30	15	1	2
Sylvan Rd	24	12	1	2

Willow Av	16	8	2	2
Winterberry	24	12	2	2
Woodknoll Dr	20	10	2	1
Woodland Rd	22	11	4	4
Woodridge Rd	30	15	2	2

North Hampton:	15 Year Road Maintenance Plan				Updated:	2/7/12
Fiscal Years	*2012-2026*					
					Completed To Date:	$217,200.00
STREET	**Last Treated**	**Plan Year**	**Traffic/ Priority**	**Existing Condition**	**Proposed Project**	**Budget Amount**
Alden Ave.	1990	2024	Low	Moderate Random Cracking	1" + Overlay	$28,000.00
Appledore Ave.	1997	2018	Low	Moderate Random Cracking	1" + Overlay	$57,350.00
Beaumonde Est.	2002	2015/2022	Low	Moderate Random Cracking	1" + Overlay	$53,320.00
Birch Rd.	2002	2015	Medium	Moderate Cracking/ Heaving	Ave. 1/1/2" Overlay	$53,630.00
Bolters Cove	1997	2018	Low	Moderate Random Cracking	1" + Overlay	$25,350.00
Boutilier La.	1999	2015/ Defer	Low	Minor Cracks	Crackseal	$1,500.00
Bradley La.	2009	Defer	Low	New Condition/ Overlay 2009	2027-2031	$0.00
Buckskin La.	2006	2014/2021	Low	Minor Cracking/ Allegation	Crackseal / 1" + Overlay	$77,320.00
Causeway Rd.	1997	2017	Low	Moderate Cracking and Rutting	1"+ Overaly	$6,410.00
Cedar Rd.	2004	2018	High	Minor Cracking	1"+ Overaly	$51,800.00
Chapel Rd.	2000	Defer/2027	Medium	Minor cracks/ good profile	1"+ Overaly	$0.00
Cherry Rd.	2002	2012	Medium	1/2 Extensive Cracking/ Heaving	Reclaim 1/2- 1 1/2" Overlay	$53,250.00
Cotton Farm Rd.	2002	2012Defer	Low	Minor Cracking	Crackseal	$1,200.00
Dearborn Rd.	1998	2016	Low	Extensive cracking- Good profile	1 1/2" Overlay	$15,000.00
Deer Run Rd.	2004	2013/2021	Low	Minor Cracking	Crackseal/ 1" + Overlay	$33,290.00
Elm Rd.	2002	2024	Low	Moderate Random Cracking	1" + Overlay	$27,600.00
Evergreen Dr.		2014/ Defer	Low	Minor Transverse Cracks	Crackseal	$1,500.00
Fern Rd.	2002	2013	Medium	Moderate Cracking and Rutting	1 1/2" overlay	$41,500.00
Garrett Rd.	1987	2026	Low	Extensive Cracking & Heaving	Total Reclaimation	$106,500.00
Glendale Rd.	2003	2024	Low	Moderate Random Cracking	1" + Overlay	$31,000.00
Goss Rd.	1998	2015/2022	Low-Medium	Moderate Transverse & Random Cracking	1" + Overlay	$97,920.00
Grandview Terr.	1991	2020	Low	Transverse and alligated cracking	Reclamation	$69,500.00
Hampshire	1990	2024	Low	Moderate Random Cracking	1" + Overlay	$30,000.00
Highlander	2000	2012	Low	Rebuilt 300' --extensive cracking	Ave 1 1/2" Overlay	$45,250.00
Hillside	1991	2020	Low-Medium	Transverse and alligated cracking	1"+ Overlay	$23,500.00
Juniper Rd.	1995	2019	Low	Moderate Cracking/ Good profile	1"+ Overlay	$37,000.00
Kimberly Dr.	2003	2024	Low	Moderate Random Cracking	1" + Overlay	$28,000.00
Lafayette Terr.	2000	2017	Low- Medium	Moderate Random Cracking	1" + Overlay	$32,700.00

Lovering Rd.		2004	2016	Medium-High	Moderate cracking & Heaving/Rutting	.4 Miles–Shim and 1 1/2" Overlay	$42,000.00
Maple Rd.		2000	Defer/2027	Medium	Minor Cracking	1" + Overlay	$0.00
Meadowfox		1991	2018	Low	Extensive Cracking/ Good profile	1"+ Overlay	$23,000.00
Mill Rd.		2006	2020/ defer	Medium-High	-	Crackseal/ 2027-2031	$4,000.00
New Rd.		2012	2012	Medium	New: Reclaim & 3.5" Pavement	-	$91,500.00
North Hill Rd.		2010	Defer	High	1" Overlay	-	$0.00
North Rd. W.		1994	2015	Medium-High	Major Cracking & Heaving	Shim & 1 1/2" overlay	$134,800.00
North Rd. E.		1999	2013	Medium-High	Extensive cracking/ Heaving	Cold Plane 1000'/ Shim & 1 1/2" Overlay	$70,000.00
Old Locke Rd.		2011	2014	Medium	Extensive cracking/ Heaving	Drainage/ 2" Ave Overlay	$42,000.00
Park Cir.		2002	Defer	Low	Moderate cracking/ Heaving	Future Reclamation Project	$0.00
Pine Rd.		2009	Defer	Medium	2009 Reclamation & 3.5" Pavement	2027-2031	$0.00
Pond Path		2009	Defer	Low-Medium	2009 Reclamation @ 3.5" Pavement	2027-2031	$0.00
Red Fox Rd.		2004	2013/2021	Low	Transverse Cracking	Crackseal/ 1" + Overlay	$39,600.00
River Rd.		1996	2014	Low	Moderate Cracking/ Heaving	Ave. 1/1/2" Overlay	$27,400.00
Rockrimmon		2011	2013	Low	Transverse and alligated cracking/rutting	Ave. 1/1/2" Overlay	$65,000.00
Runnymede		2005	2012	Low	Minor Cracking	Crackseal	$1,200.00
Runnymede		2005	2023	Low	Minor Cracking	1"+ Overlay	$44,800.00
Sea Rd.		1993	2012	Medium-High	Extensive cracking and delamination	Fabric, Patch, Ave. 1.5" Overlay	$23,400.00
Shepherds La.		1998	2013/2025	Low	Moderate Cracking	Crackseal - 1" Overlay	$39,200.00
Ship Rock		1989	2017	Low	Minor Cracking/ Some alligation	Ave. 1/1/2" Overlay	$77,000.00
South Rd. W.		2001	2013/ 2016	Medium-High	Tranverse/ Vertical Cracking w/ maj. heaving	1 1/2" Overlay/ Reclaim & 1 1/2" Overlay	$199,750.00
South Rd. E.		2004	2013	Medium-High	Tranverse/ Vertical Cracking w/ maj. heaving	Cold Plane 2" pavement- Shim Overlay	$35,900.00
Spruce Meadow		2000	2019	Low	Exstensive Cracking and Heaving	Reclaim and 3.5" Pavement	$120,000.00
Squier Dr.		2002	2012/ Defer	Low	Moderate Cracking	Crackseal	$1,400.00
Stevens Rd.		1991	2020	Low	Transverse and alligated cracking	1"+ Overlay	$59,500.00
Sylvan Rd.		1991	2018	Low	Transverse and alligated cracking	1"+ Overlay	$21,000.00
Willow Ave.		1997	2017	Low-Medium	Extensive Allegated Cracking/ Delaminating	Cold Plane & 1 1/2" Overlay	$58,750.00
Winterberry La.			2014/2025	Low	Minor Cracking & Movement	Crack seal - Ave. 1 1/2" Overlay	$71,800.00
Woodknoll Dr.		2009	2026	defer	Minor Cracking	1" + Overlay	$47,000.00
Woodland Rd. N.		1998	2014	Medium-High	Tranverse/ Vertical Cracking w/ Minor Heaving	Ave. 1/1/2" Overlay	$126,600.00
Woodland Rd. S.		2005	2025	Medium-High	Tranverse/ Vertical Cracking	Ave 1 1/2" Overlay	$95,000.00
Woodridge Dr.		1995	2022	Low-Medium	Moderate Cracking/ Good profile	1"+ Overlay	$23,500.00
						Total Plan Amount =	**$2,614,490.00**
					15 Year Plan:	**Ave/ Year =**	**$174,299.33**

North Hampton 15 Year Road Maintenance Plan				Updated:	4/25/12
Yearly Breakdown					
STREET	**Plan Year**	**Traffic/ Priority**	**Existing Condition**	**Proposed Project**	**Budget Amount**
Cherry Rd.	2012	Medium	1/2 Extensive Cracking/ Heaving	Reclaim/ Overlay	$53,250.00
Cotton Farm Rd.	2012	Low	Minor Cracking	Crackseal	$1,200.00
Highlander	2012	Low	Rebuilt 300' --extensive cracking	Ave 1 1/2" Overlay	$45,250.00
New Rd.	2012	Medium	New: Reclaim & 3.5" Pavement	-	$91,500.00
Sea Rd.	2012	Medium-High	Extensive cracking and delamination	Fabric, Patch, Ave. 1.5" Overlay	$23,400.00
Runnymede	2012	Low	Minor Cracking	Crackseal	$1,200.00
Squier Dr.	2012	Low	Moderate Cracking	Crackseal	$1,400.00
				Total Year 2012 =	$217,200.00
Fern Rd.	2013	Medium	Moderate Cracking and Rutting	1 1/2" overlay	$41,500.00
North Rd. E.	2013	Medium-High	Extensive cracking/ Heaving	Cold Plane 1000'/ Shim & 1 1/2" Overlay	$70,000.00
Rockrimmon	2013	Low	Transverse and alligated cracking/rutting	Ave. 1/1/2" Overlay	$65,000.00
Shepherds La.	2013	Low	Moderate Cracking	Crackseal	$1,200.00
South Rd. W. Post-95	2013	Medium-High	Tranverse Cracking w/ maj. heaving	1 1/2" Overlay	$82,750.00
South Rd. E.	2013	Medium-High	Tranverse Cracking w/ maj. heaving	Cold Plane 2" pavement- Shim Overlay	$35,900.00
Deer Run Rd.	2013	Low	Minor Cracking	Crackseal	$1,600.00
Red Fox Rd.	2013	Low	Minor Cracking	Crackseal	$1,400.00
				Total Year 2013 =	$299,350.00
River Rd.	2014	Low	Moderate Cracking/ Heaving	1" + Overlay	$27,400.00
Woodland Rd. N.	2014	Medium-High	TranverseCracking w/ Minor Heaving	Ave. 1/1/2" Overlay	$126,600.00
Evergreen Dr.	2014/ Defer	Low	Minor Transverse Cracks	Crackseal	$1,500.00
Buckskin La.	2014	Low	Minor Cracking/ Allegation	Crackseal	$1,800.00
Winterberry La.	2014	Low	Minor Cracking & Movement	Crack seal	$1,800.00
Old Locke Rd.	2014	Medium	Extensive cracking/ Heaving	Drainage/ 2" Ave Overlay	$42,000.00
				Total Year 2014 =	$201,100.00
North Rd. W.	2015	Medium-High	Major Cracking & Heaving	Shim & 1 1/2" overlay	$134,800.00
Boutilier La.	2015/ Defer	Low	Minor Cracks	Crackseal	$1,500.00
Goss Rd.	2015	Low	Moderate Transverse & Random Cracking	Crackseal	$1,800.00
Beaumonde Est.	2015	Low	Moderate Random Cracking	Crackseal	$1,500.00
Birch Rd.	2015	Medium	Moderate Cracking/ Heaving	Ave. 1/1/2" Overlay	$53,630.00

				Total Year 2015 =	$193,230.00
Lovering Rd.	2016	Medium-High	Moderate cracking & Heaving/Rutting	.4 Miles--Shim and 1 1/2" Overlay	$42,000.00
South Rd. W.--95- Exeter	2016	Medium-High	Tranverse/ Vertical Cracking w/ maj. heaving	Reclaim 1000' & 1 1/2" Overlay	$117,000.00
Dearborn Rd.	2016	Low	Extensive cracking- Good profile	1 1/2" Overlay	$15,000.00
				Total Year 2016 =	$174,000.00
Lafayette Terr.	2017	Low- Medium	Moderate Random Cracking	1" + Overlay	$32,700.00
Causeway Rd.	2017	Low	Moderate Cracking and Rutting	1"+ Overaly	$6,410.00
Willow Ave	2017	Low-Medium	Extensive Allegated Cracking/ Delaminating	Cold Plane & 1 1/2" Overlay	$58,750.00
Ship Rock	2017	Low	Minor Cracking/ Some alligation	Ave. 1/1/2" Overlay	$77,000.00
				Total Year 2017 =	$174,860.00
Cedar Rd.	2018	High	Minor Cracking	1"+ Overaly	$51,800.00
Appledore Ave.	2018	Low	Moderate Random Cracking	1" + Overlay	$57,350.00
Bolters Cove	2018	Low	Moderate Random Cracking	1" + Overlay	$25,350.00
Meadowfox	2018	Low	Transverse and alligated cracking	1"+ Overlay	$23,000.00
Sylvan Rd.	2018	Low	Transverse and alligated cracking	1"+ Overlay	$21,000.00
				Total Year 2018=	$178,500.00
Spruce Meadow	2019	Low	Exstensive Cracking and Heaving	Reclaim and 3.5" Pavement	$120,000.00
Juniper Rd.	2019	Low	Moderate Cracking/ Good profile	1"+ Overlay	$37,000.00
Woodridge Dr.	2019	Low	Moderate Cracking/ Good profile	1"+ Overlay	$23,500.00
				Total Year 2019 =	$180,500.00
Grandview Terr.	2020	Low	Transverse and alligated cracking	Reclamation	$69,500.00
Mill Rd.	2020	Medium-High	-	Crackseal	$4,000.00
Stevens Rd.	2020	Low	Transverse and alligated cracking	1"+ Overlay	$59,500.00
Hillside	2020	Low-Medium	Transverse and alligated cracking	1"+ Overlay	$23,500.00
				Total Year 2020=	$156,500.00

Deer Run Rd.		2021	Low	Minor Cracking	1" + Overlay	$31,690.00
Red Fox Rd.		2021	Low	Transverse Cracking	1" + Overlay	$38,200.00
Buckskin La.		2021	Low	Minor Cracking/ Allegation	1" + Overlay	$75,520.00
					Total Year 2021 =	$145,410.00
Goss Rd.		2022	Low	Mod. Transverse & Random Cracking	1" + Overlay	$96,120.00
Beaumonde Est.		2022	Low	Moderate Random Cracking	1" + Overlay	$51,820.00
					Total Year 2022 =	$147,940.00
Runnymede		2023	Low	Minor Cracking	Crackseal/ 1"+ Overlay	$44,800.00
Woodland Rd. S.		2023	Medium-High	Tranverse/ Vertical Cracking	Ave 1 1/2" Overlay	$95,000.00
					Total Year 2023 =	$139,800.00
Alden Ave.		2024	Low	Moderate Random Cracking	1" + Overlay	$28,000.00
Glendale Rd.		2024	Low	Moderate Random Cracking	1" + Overlay	$31,000.00
Kimberly Dr.		2024	Low	Moderate Random Cracking	1" + Overlay	$28,000.00
Hampshire		2024	Low	Moderate Random Cracking	1" + Overlay	$30,000.00
Elm Rd.		2024	Low	Moderate Random Cracking	1" + Overlay	$27,600.00
					Total Year 2024=	$144,600.00
Winterberry La.		2025	Low	Minor Cracking & Movement	Ave. 1 1/2" Overlay	$70,000.00
Shepherds La.		2025	Low	Moderate Cracking	1"+ Overlay	$38,000.00
					Total Year 2025=	$108,000.00
Garrett Rd.		2026	Low	Transverse and alligated cracking	Reclamation	$106,500.00
Woodknoll Dr.		2026	Low	Minor Cracking	1" + Overlay	$47,000.00
					Total Year 2026=	$153,500.00
					Total Plan Amount =	$2,614,490.00

B. *"North Hampton: Road Surface Management system," submitted by UNH T^2 (February, 2012)*

BACKGROUND

In most municipalities throughout the United States, road and street surfaces represent the largest single cost of building and maintaining a transportation system. 40% to 50% of public funds spent on roadway systems are for the road surface. For many smaller communities, this percentage can be much higher.

Because of this tremendous investment in roadway systems, local communities must control costs by slowing roadway surface deterioration. This requires making cost effective decisions regarding the maintenance, repair, rehabilitation, and reconstruction of their municipal roadway network. Developing a maintenance budget based on cost-effective decisions requires a rational, systematic process. Road managers evaluate the condition of the road network and allocate funds where they can do the most good.

However, most maintenance budgets are developed without a systematic decision making process. Typically, communities develop road maintenance budgets using one or more of the following methods:

Last Year's Budget - This year's budget is last year's budget, with an arbitrary increase or decrease.

Standard Program - Establish a program based on periodic maintenance, such as seal coats every 5 years and overlays every 10 years.

Squeaky Wheel - Respond to emergency demands and citizen complaints as they arise.

Worst First - Major maintenance is prioritized on a "worst-first" basis. Those streets that look bad get attention. This approach has a certain logical (although not correct) appeal that satisfies the public and city council.

Political Pressure - Use political considerations to establish programs and budgets.

Gut Feel - Base the budget on the knowledge, experience, and "gut feeling" of managers and experienced employees.

These criteria, separately or in combination, are adequate only if the agency has the required funds and the majority of road surfaces are in excellent condition. In nearly all towns and cities, the road network is in bad shape and getting worse and funding sources are becoming scarce. Governing bodies are under pressure to lower taxes. It is clear that communities need a better decision making process based on reliable information. In this tight fiscal environment, municipal officials might ask the following types of questions:

- How many miles of roads do we have?
- What types of pavement must we maintain?
- Should maintenance resources be used on our best or our worst roads?
- What will happen to our road system if maintenance funds are increased or decreased by some percentage?
- Is it more cost-effective to repair and seal, overlay, recycle or completely reconstruct a particular road?
- What are our maintenance and rehabilitation requirements over the next five years?
- How can available money be spent in the most cost-effective way?

In these tough economic times, we must answer these questions. Municipal officials need a system that enables them to assess the condition of the network, weigh alternatives, and establish

long-term programs and budgets. They need an effective road surface management system. The Road Surface Management System (RSMS) is the system.

THE RSMS PROCESS

The main function of RSMS is to store and analyze data, and to generate reports that will assist municipal officials in making cost-effective decisions.

The RSMS process includes the following tasks at the network level:

- taking an accurate inventory of the network (paved and unpaved)
- assessing the condition of the network
- developing maintenance and rehabilitation alternatives
- weighing the alternatives
- prioritizing maintenance needs
- generating reports that support budgets and findings

The first two tasks require developing a database of information pertaining to the physical features of the network and the present condition of the pavement surfaces. The third task is the careful development of maintenance strategies that are right for the local situation. Strategies that make sense for a small beach community in Delaware may not be wise for a large town in Maine. The remaining activities are analyses of data that are performed by the RSMS program.

BENEFITS OF RSMS

There are many benefits that can be derived from correctly using a rational, systematic method to manage the maintenance of North Hampton's road surfaces with RSMS. These include:

1. Efficient Use of Limited Resources

Since most local agencies do not have adequate funding to support all the required maintenance and rehabilitation each year, prioritization of each candidate project is essential to ensure that the available funds are spent wisely.

2. Customized for each Municipality

RSMS can be customized for each municipality. Each Town or City has a level of comfort with certain repair strategies. Flexibility built into the program allows big or small communities to build RSMS to fit their own needs.

3. Substantiate Results

Annual budgets can be developed logically, with a minimum amount of guesswork or "gut feeling." Agencies can review information contained within the reports, such as the condition, costs, and needs of the network to determine consequences of their decisions.

4. Quantify Condition of the Network

After the condition survey has been completed and all data entered into the computer, RSMS can numerically generate the overall condition of the network. This will serve as a baseline to determine if the overall condition is improving from one year to the next. The condition index

ranges from 20 (indicating every street must be rebuilt) to 100 (indicating that all streets are in very good shape). An increase in the condition index from one year to the next shows that your community is making progress, while a decrease in the index indicates that the overall condition of the network is getting worse.

5. Communicate Results in a Convincing Format

To obtain approval from a skeptical board of elected officials; the maintenance needs of the municipality must be conveyed in a convincing manner. It is hard to disagree with a plan that is based on a rational decision-making process that uses facts and figures as opposed to an arbitrary method.

RSMS generates simple, customized reports that are easy to read and that can be reviewed by non-technical personnel with a minimal amount of interpretation. The reports include all the input data such as inventory and distress survey results, as well as projected repairs and budget reports.

6. Better Understanding of the Overall Situation

When a manager has more in-depth knowledge of the situation, he or she will be better able to explain the plan and handle any questions/concerns of municipal officials or angry citizens. By understanding the condition and needs of the network a manager can explain why it is essential to obtain the required funding. This is especially important when asking for the additional funds required in preventing the network from further deterioration.

7. Better Support Data

The old saying, "garbage in is garbage out," holds true when it comes to PMS. Since a RSMS is data intensive and data sensitive, good data is necessary to provide good results. Over time, collection of data for RSMS will result in a data bank of information that can be used to make decisions specific to your local situation.

If you track the performance of various techniques you may find that you need to change some life expectancies, or certain maintenance strategies may have to be changed because of poor results. Reviewing bid proposals from contractors will provide better unit cost information for predicting the cost of repairs. After analyzing the collected information, RSMS allows one to easily update those files to bring together the new information. Updating the tables will produce results that better fit one's local conditions.

8. More Accurate and Accessible Information

RSMS requires a tremendous amount of information and extensive analysis of this information. The data files provide an easy-to-use set of "file cabinets" that are available at the touch of a few keys. Also, the files can be easily updated and revised. Calculations can be performed quickly and accurately. Then reports can be quickly produced.

9. Team-Like Atmosphere

One of the most overlooked benefits of RSMS is that it promotes a team atmosphere. By producing a credible report that is based on a rational approach, RSMS can help to reduce the frustration that frequently develops during the budgeting process. Also, knowing that you are effectively managing your resources by taking a pro-active approach rather than fighting fires will provide job satisfaction.

University of New Hampshire
Road Surface Management System
February 2012

Road Section Name	Road Width	Length	Traffic Volume	Importance	SURVEY DATE	Alligator Cracks (1/8in)	Edge Cracking (12/24in)	Longitudinal / Transverse Cracks (1/4in)	Patching / Potholes	Roughness	Drainage	Rutting
Alden Av	30	630.37	Low	Minimal	6/28/2011 0:00	Med Sev/Med Ext	Med Sev/Low Ext	High Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	2 - Fair	0 - 1in
Appledore Av	28	1,783.98	Minimal	Low	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Low Sev/Med Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Beau Monde Drive	24	2,437.47	Minimal	Low	6/28/2011 0:00	Med Sev/Med Ext	High Sev/Med Ext	High Sev/Med Ext	0 - None	2 - Somewhat Rough	3 - Good	0 - 1in
Birch Rd	20	3,917.87	High	Medium	6/28/2011 0:00	Low Sev/Med Ext	Med Sev/Low Ext	High Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	1 to 2in
Boutilier Ln	24	2,728.89	Minimal	Low	6/28/2011 0:00	None	None	High Sev/Low Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Boutler'S Cove	30	1,046.01	Minimal	Low	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Low Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	1 - Smooth	4 - Excellent	0 - 1in
Bradley Lane	24	3,354.80	Minimal	Low	6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Causeway Rd	16	455.42	Medium	Minimal	6/28/2011 0:00	Med Sev/Low Ext	Low Sev/Low Ext	Med Sev/Med Ext	0 - None	1 - Smooth	3 - Good	0 - 1in
Cedar Rd	22	2,738.10	Critical	High	6/28/2011 0:00	Low Sev/Low Ext	None	Low Sev/Med Ext	0 - None	2 - Somewhat Rough	4 - Excellent	0 - 1in
Chapel Rd	16	4,195.68	Low	Medium	6/28/2011 0:00	Med Sev/Low Ext	Low Sev/Low Ext	Med Sev/Med Ext	0 - None	1 - Smooth	3 - Good	0 - 1in
Cherry Rd	18	1,720.30	Medium	Medium	6/28/2011 0:00	Med Sev/High Ext	Med Sev/Med Ext	Med Sev/Low Ext	3 - High (30+% / 1-+ per 100ft)	3 - Rough	3 - Good	1 to 2in
Cotton Farm Ln	24	3,079.62	Minimal	Low	6/28/2011 0:00	None	Low Sev/Low Ext	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Dearborn Rd	14	692.66	Minimal	Medium	6/28/2011 0:00	Med Sev/Low Ext	High Sev/Med Ext	Med Sev/High Ext	0 - None	2 - Somewhat Rough	3 - Good	0 - 1in
Deer Run Rd	24	3,123.92	Low	Low	6/28/2011 0:00	Med Sev/Low Ext	High Sev/High Ext	High Sev/Med Ext	0 - None	1 - Smooth	3 - Good	0 - 1in
Elm Rd	16	1,195.64	Medium	Medium	6/28/2011 0:00	Med Sev/High Ext	Med Sev/High Ext	Med Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	4 - Excellent	1 to 2in
Fern Rd	20	2,201.05	Medium	Medium	6/28/2011 0:00	Low Sev/Med Ext	High Sev/Med Ext	Med Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Garrett Rd	24	2,439.80	Minimal	Minimal	6/28/2011 0:00	Med Sev/High Ext	Med Sev/Low Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	2+ in
Glendale Rd	30	1,018.73	Low	Minimal	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Low Sev/High Ext	0 - None	1 - Smooth	2 - Fair	0 - 1in
Goss Rd	20	5,117.93	Minimal	Low	6/28/2011 0:00	Med Sev/High Ext	High Sev/High Ext	Med Sev/Med Ext	0 - None	2 - Somewhat Rough	3 - Good	0 - 1in
Grandview Terr	20	1,048.22	Minimal	Low	6/28/2011 0:00	Med Sev/Med Ext	Med Sev/Low Ext	High Sev/High Ext	3 - High (30+% / 1-+ per 100ft)	2 - Somewhat Rough	2 - Fair	0 - 1in
Hampshire Dr	30	775.11	Low	Low	6/28/2011 0:00	Med Sev/Med Ext	Low Sev/Low Ext	Low Sev/Low Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Highlander Dr	24	2,393.60	Low	Low	6/28/2011 0:00	Med Sev/High Ext	High Sev/High Ext	Low Sev/Low Ext	2 - Medium (10-30% / <10 per 100ft)	2 - Somewhat Rough	3 - Good	1 to 2in
Hillside Rd	30	837.41	Low	Minimal	6/28/2011 0:00	Low Sev/Med Ext	Low Sev/Med Ext	Med Sev/High Ext	2 - Medium (10-30% / <10 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Juniper Rd	30	1,389.05	Low	Low	6/28/2011 0:00	Med Sev/High Ext	Med Sev/Low Ext	High Sev/High Ext	0 - None	2 - Somewhat Rough	2 - Fair	1 to 2in
Kimberly Dr.	30	1,275.18	Low	Low	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Low Sev/Low Ext	1 - Low (<10% / 5 per 100ft)	1 - Smooth	3 - Good	0 - 1in
Lafayette Ter	20	771.56	Medium	Low	6/28/2011 0:00	Med Sev/Low Ext	Med Sev/Low Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Lafayette Ter	20	608.33	Medium	Low	6/28/2011 0:00	Med Sev/Low Ext	Med Sev/Low Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Maple Rd.	16	2,963.65	Medium	Medium	6/28/2011 0:00	Med Sev/Low Ext	Med Sev/Low Ext	High Sev/Low Ext	0 - None	2 - Somewhat Rough	3 - Good	0 - 1in
Meadow Fox Rd.	20	793.55	Minimal	Low	6/28/2011 0:00	Med Sev/Med Ext	Med Sev/Med Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Mill Rd	18	6,825.17	High	High	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	None	0 - None	1 - Smooth	3 - Good	0 - 1in
New Rd	18	1,944.65	Medium	Medium	6/28/2011 0:00	Low Sev/High Ext	Med Sev/Med Ext	Med Sev/Med Ext	3 - High (30+% / 1-+ per 100ft)	2 - Somewhat Rough	2 - Fair	1 to 2in
North Hill Rd	10	414.70	Critical	High	6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
North Rd	18	6,332.38	High	High	6/28/2011 0:00	Med Sev/Low Ext	High Sev/Med Ext	High Sev/High Ext	2 - Medium (10-30% / <10 per 100ft)	2 - Somewhat Rough	2 - Fair	1 to 2in
North Rd	18	3,054.94	High	High	6/28/2011 0:00	Med Sev/Med Ext	Med Sev/Low Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	2 - Fair	2+ in
Old Locke Rd	18	604.39	Low	Medium	6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Old Locke Rd	18	2,249.56	Low	Medium	6/28/2011 0:00	High Sev/High Ext	Low Sev/Low Ext	High Sev/Low Ext	0 - None	2 - Somewhat Rough	3 - Good	1 to 2in
Park Circle	24	1,559.52	Minimal	Low	6/28/2011 0:00	Med Sev/Med Ext	High Sev/High Ext	Med Sev/High Ext	0 - None	2 - Somewhat Rough	1 - Poor	0 - 1in
Pine Rd	22	2,681.35	Medium	Medium	6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	3 - Good	0 - 1in
Pond Path	24	3,591.10	Low	Low	6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
River Rd	18	1,303.18	Minimal	Minimal	6/28/2011 0:00	Low Sev/Med Ext	Med Sev/Low Ext	None	0 - None	1 - Smooth	3 - Good	0 - 1in
Rockrimmon Rd	24	3,719.87	Minimal	Low	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Med Sev/Low Ext	2 - Medium (10-30% / <10 per 100ft)	2 - Somewhat Rough	3 - Good	2+ in
Runnymede Dr	20	2,629.18	Minimal	Low	6/28/2011 0:00	None	None	Low Sev/Low Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Sea Rd	16	1,214.41	High	Medium	6/28/2011 0:00	Low Sev/High Ext	Med Sev/Med Ext	Med Sev/High Ext	2 - Medium (10-30% / <10 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Ship Rock Rd	24	3,869.38	Minimal	Low	6/28/2011 0:00	Low Sev/Low Ext	None	Low Sev/High Ext	1 - Low (<10% / 5 per 100ft)	1 - Smooth	3 - Good	0 - 1in
South Rd	24	9,413.78	Critical	High	6/28/2011 0:00	High Sev/Low Ext	Med Sev/Low Ext	Med Sev/High Ext	2 - Medium (10-30% / <10 per 100ft)	2 - Somewhat Rough	3 - Good	1 to 2in
Spruce Meadow Dr	22	2,345.77	Minimal	Low	6/28/2011 0:00	High Sev/Med Ext	Med Sev/High Ext	Med Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	1 - Poor	1 to 2in
Stevens Rd	30	1,618.69	Low	Minimal	6/28/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Med Sev/Med Ext	0 - None	2 - Somewhat Rough	3 - Good	0 - 1in
Sylvan Rd	24	1,112.72	Low	Minimal	6/28/2011 0:00	Med Sev/Low Ext	Low Sev/Low Ext	High Sev/High Ext	0 - None	2 - Somewhat Rough	3 - Good	0 - 1in
Willow Av	16	2,842.69	Low	Low	6/28/2011 0:00	Med Sev/High Ext	High Sev/High Ext	High Sev/High Ext	3 - High (30+% / 1-+ per 100ft)	3 - Rough	2 - Fair	2+ in
Woodknoll Dr	20	1,101.49	Minimal	Low	6/28/2011 0:00	Low Sev/Med Ext	Low Sev/Low Ext	Med Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Woodknoll Dr	20	955.45	Minimal	Low	6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Woodland Rd	22	10,900.29	High	High	6/28/2011 0:00	Med Sev/High Ext	Med Sev/Low Ext	Med Sev/Low Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	2 - Fair	1 to 2in
Woodridge Rd	30	1,203.17	Low	Low	6/28/2011 0:00	Low Sev/Med Ext	None	Low Sev/Med Ext	0 - None	2 - Somewhat Rough	4 - Excellent	0 - 1in
Shepherds Ln	24	1,590.00	Minimal	Low	7/8/2011 0:00	None	Low Sev/Low Ext	High Sev/Med Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Lovering Rd	22	3,675.94	High	High	2/7/2012 0:00	High Sev/Low Ext	Med Sev/Med Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Lovering Rd	22	3,675.94	High	High	2/7/2012 0:00	High Sev/Low Ext	Med Sev/Med Ext	High Sev/High Ext	1 - Low (<10% / 5 per 100ft)	2 - Somewhat Rough	3 - Good	0 - 1in
Squier Dr	24	5,053.00	Minimal	Low	7/8/2011 0:00	Med Sev/Low Ext	None	Med Sev/Low Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Buckskin Ln	24	3,600.00	Minimal	Low	7/8/2011 0:00	Low Sev/Low Ext	Med Sev/High Ext	Med Sev/Low Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Evergreen Dr	24	2,703.00	Low	Low	7/8/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Red Fox Rd	24	1,726.00	Low	Low	7/8/2011 0:00	None	Low Sev/Low Ext	High Sev/Low Ext	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Highlander Dr	24	864.91			6/28/2011 0:00	None	None	None	0 - None	1 - Smooth	4 - Excellent	0 - 1in
Winterberry Ln	24	3,495.00	Medium	Low	7/8/2011 0:00	Low Sev/Low Ext	Low Sev/Low Ext	Med Sev/Med Ext	1 - Low (<10% / 5 per 100ft)	1 - Smooth	4 - Excellent	0 - 1in

Total Road Miles **156,605.51** **Ft**
29.66 **Miles**

CAPITAL IMPROVEMENTS

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length (Ft)
	Repair		**Cost**		
Year 1					
5	South Rd				9413.78
	Recondition surface/base		$ 711,681.68		
	Total Cost for Year 1:		**$ 711,681.68**		
Year 2					
10	Woodland Rd				10900.29
	Ditch, replace 6in base, 2in surface		$ 462,676.41		
48	Elm Rd				1195.64
	Ditch, replace 6in base, 2in surface		$ 36,909.43		
55	Old Locke Rd				2249.56
	Ditch, replace 6in base, 2in surface		$ 78,124.33		
	Total Cost for Year 2:		**$ 577,710.17**		
Year 3					
4	Sea Rd				1214.41
	Recondition surface/base		$ 67,480.09		
7	Cherry Rd				1720.30
	Ditch, replace 6in base, 2in surface		$ 62,730.93		
35	Willow Av				2842.69
	Ditch, replace 6in base, 2in surface		$ 92,141.45		
50	North Rd				6332.38
	Recondition surface/base		$ 395,847.95		
	Total Cost for Year 3:		**$ 618,200.42**		

Year 4			
12	Highlander Dr		2393.60
	Recondition surface/base	$ 209,479.14	
41	Rockrimmon Rd		3719.87
	Recondition surface/base	$ 325,549.71	
	Total Cost for Year 4:	**$ 535,028.85**	
Year 5			
15	Juniper Rd		1389.05
	Ditch, replace 6in base, 2in surface	$ 93,073.24	
29	Goss Rd		5117.93
	Ditch, replace 6in base, 2in surface	$ 228,616.99	
42	Hillside Rd		837.41
	Recondition surface/base	$ 96,188.92	
49	Garrett Rd		2439.80
	Ditch, replace 6in base, 2in surface	$ 130,782.47	
	Total Cost for Year 5:	**$ 548,661.62**	
	Total Cost:	**$ 2,991,282.75**	

MAINTENANCE

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length
	Repair			**Cost**	
Year 1					
21	Maple Rd.	0			2963.65
	Hot Mix Patch			$ 12,447.33	
24	Fern Rd	0			2201.05
	1.5in HMA overlay			$ 26,996.61	
28	New Rd	0			1944.65
	Ditch, fill/seal cracks			$ 1,327.23	
51	North Rd	0			3054.94
	1.5in HMA overlay			$ 33,722.77	
62	Lovering Rd	0			3675.94
	1.5in HMA overlay			$ 49,595.27	
	Total Cost for Year 1:			**$ 124,089.21**	
Year 2					
8	Lafayette Ter	0			771.56
	1.5in HMA overlay			$ 9,936.55	
18	Woodknoll Dr	0			1101.49
	Ditch, fill/seal cracks			$ 789.35	
27	Birch Rd	0			3917.87
	2in HMA overlay			$ 67,383.48	
45	Deer Run Rd	0			3123.92
	1.5in HMA overlay			$ 48,278.01	
	Total Cost for Year 2:			**$ 126,387.40**	

Asset Repairs Costs Grouped by Year
MAINTENANCE

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length
	Repair			**Cost**	
Year 3					
33	Alden Av	0			630.37
	2in HMA overlay			$ 17,075.70	
40	Dearborn Rd	0			692.66
	1.5in HMA overlay			$ 6,556.56	
44	Hampshire Dr	0			775.11
	1.5in HMA overlay			$ 15,722.23	
47	Lafayette Ter	0			608.33
	1.5in HMA overlay			$ 8,226.14	
63	Lovering Rd	0			3675.94
	2in HMA overlay			$ 73,022.06	
	Total Cost for Year 3:			**$ 120,602.69**	
Year 4					
3	Cedar Rd	0			2738.10
	Hot Mix Patch			$ 18,305.00	
6	Grandview Terr	0			1048.22
	1.5in HMA overlay			$ 14,883.36	
23	Woodridge Rd	0			1203.17
	Ditch, fill/seal cracks			$ 950.60	
26	Stevens Rd	0			1618.69
	Ditch, fill/seal cracks			$ 1,278.89	
28	New Rd	0			1944.65
	Ditch, fill/seal cracks			$ 1,536.43	
30	Sylvan Rd	0			1112.72
	1.5in HMA overlay			$ 18,958.90	
32	Beau Monde Drive	0			2437.47
	1.5in HMA overlay			$ 41,530.44	
46	Meadow Fox Rd.	0			793.55
	1.5in HMA overlay			$ 11,267.32	
56	Buckskin Ln	0			3600.00
	Ditch, fill/seal cracks			$ 2,844.28	
	Total Cost for Year 4:			**$ 111,555.23**	

Asset Repairs Costs Grouped by Year
MAINTENANCE

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length
	Repair			**Cost**	
Year 5					
13	Chapel Rd	0			4195.68
	Ditch, fill/seal cracks			$ 3,480.66	
19	Causeway Rd	0			455.42
	Ditch, fill/seal cracks			$ 377.81	
37	Spruce Meadow Dr	0			2345.77
	1.5in HMA overlay			$ 38,469.29	
39	Boutler'S Cove	0			1046.01
	Hot Mix Patch			$ 10,012.51	
43	Park Circle	0			1559.52
	1.5in HMA overlay			$ 27,900.26	
59	Shepherds Ln	0			1590.00
	1.5in HMA overlay			$ 28,445.54	
60	Winterberry Ln	0			3495.00
	Ditch, fill/seal cracks			$ 2,899.39	
	Total Cost for Year 5:			**$ 111,585.47**	

Asset Repairs Costs Grouped by Year
MAINTENANCE

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length
	Repair			**Cost**	
Year 6					
1	Appledore Av	0			1783.98
	Hot Mix Patch			$ 16,734.90	
9	River Rd	0			1303.18
	Ditch, fill/seal cracks			$ 1,135.15	
11	Ship Rock Rd	0			3869.38
	Ditch, fill/seal cracks			$ 3,370.47	
16	Mill Rd	0			6825.17
	Hot Mix Patch			$ 41,158.71	
21	Maple Rd.	0			2963.65
	Hot Mix Patch			$ 15,886.30	
31	Kimberly Dr.	0			1275.18
	Hot Mix Patch			$ 12,816.48	
38	Glendale Rd	0			1018.73
	Ditch, fill/seal cracks			$ 887.38	
54	Old Locke Rd	0			604.39
	Hot Mix Patch			$ 3,644.71	
58	Red Fox Rd	0			1726.00
	Hot Mix Patch			$ 13,878.03	
	Total Cost for Year 6:			**$ 109,512.13**	
Year 7					
2	Boutilier Ln	0			2728.89
	Hot Mix Patch			$ 23,038.89	
14	North Hill Rd	0			414.70
	Hot Mix Patch			$ 1,458.81	
18	Woodknoll Dr	0			1101.49
	Ditch, fill/seal cracks			$ 1,007.44	
34	Pond Path	0			3591.10
	Hot Mix Patch			$ 30,318.22	
53	Highlander Dr	0			864.91
	Hot Mix Patch			$ 7,302.10	
57	Squier Dr	0			5053.00
	Hot Mix Patch			$ 42,660.47	
	Total Cost for Year 7:			**$ 105,785.93**	

Asset Repairs Costs Grouped by Year
MAINTENANCE

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length
	Repair			**Cost**	
Year 8					
51	North Rd	0			3054.94
	1.5in HMA overlay			$ 47,451.33	
62	Lovering Rd	0			3675.94
	1.5in HMA overlay			$ 69,785.52	
	Total Cost for Year 8:			**$ 117,236.85**	
Year 9					
17	Bradley Lane	0			3354.80
	Hot Mix Patch			$ 31,226.33	
20	Runnymede Dr	0			2629.18
	Hot Mix Patch			$ 20,393.58	
25	Cotton Farm Ln	0			3079.62
	Hot Mix Patch			$ 28,664.98	
28	New Rd	0			1944.65
	Ditch, fill/seal cracks			$ 1,960.92	
40	Dearborn Rd	0			692.66
	1.5in HMA overlay			$ 8,786.41	
61	Evergreen Dr	0			2703.00
	Hot Mix Patch			$ 25,159.44	
	Total Cost for Year 9:			**$ 116,191.65**	

Asset Repairs Costs Grouped by Year
MAINTENANCE

UID	Road_Section_Name	End_Milepost	From_Street	To_Street	Length
	Repair			**Cost**	
Year 10					
8	Lafayette Ter	0			771.56
	1.5in HMA overlay			$ 14,680.81	
23	Woodridge Rd	0			1203.17
	Ditch, fill/seal cracks			$ 1,273.90	
24	Fern Rd	0			2201.05
	1.5in HMA overlay			$ 41,880.60	
26	Stevens Rd	0			1618.69
	Ditch, fill/seal cracks			$ 1,713.84	
36	Pine Rd	0			2681.35
	Hot Mix Patch			$ 24,022.03	
47	Lafayette Ter	0			608.33
	1.5in HMA overlay			$ 11,575.01	
52	Woodknoll Dr	0			955.45
	Hot Mix Patch			$ 7,781.65	
56	Buckskin Ln	0			3600.00
	Ditch, fill/seal cracks			$ 3,811.61	
	Total Cost for Year 10:			**$ 106,739.45**	
			Total 10 Year Cost	**$1,149,686.01**	

C. *Report of Dr. Victor Azzi, Ph.D., P.E.*

TOWN OF NORTH HAMPTON --- MUNICIPAL CAMPUS

An Analysis of Needs, Opportunities, and Alternatives

FINAL REPORT

Victor D. Azzi, PhD, PE
Consulting Engineer and Planner

April and May 2012

TOWN OF NORTH HAMPTON --- MUNICIPAL CAMPUS
An Analysis of Needs, Opportunities, and Alternatives

TOWN OF NORTH HAMPTON --- MUNICIPAL CAMPUS
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PREFACE AND BACKGROUND

The Town of North Hampton has a unique opportunity to develop a Municipal Campus composed of a set of Municipal buildings on Atlantic Avenue that will better serve the needs of the townspeople along with the needs of the people in Town government within the facilities that house the Town Administrative Offices, the Fire and Rescue Department, the Police Department, the North Hampton Public Library, the Town Hall, and the Historical Town Office building (originally built and used as the NH Public Library).

This summary report relies and builds strongly on the various studies undertaken and reports that have been prepared in recent years, some dating back to the year 1999; these include internal assessments and reports by the Fire and Rescue Department (2004), the Police Department (2004), the North Hampton Master Plan (1999), and the Patience Jackson Library Assessment (2001, 2008) and a recent proposed "Timeline" for the North Hampton Public Library. The essential substance of these reports, along with the information gleaned from meetings and conversations with members of the North Hampton Town Administration and CIP Committee, and brief visits to and cursory tours of the various existing buildings, viz. the Police Department, the Fire and Rescue Department, the Town Administrative Offices, the North Hampton Public Library, the Historical Town Office building, and the Town Hall.

Two detailed earlier assessment, programming, and planning studies were undertaken and reported by Dennis Mires, AIA, of The Architect (2001), and Jonathan Halle, AIA, of Warrenstreet Architects (2011). I have reviewed, critically, the data gathered, tabulated, priced, and projected by these studies and judge them to be factually correct. Seeing no reason to duplicate, replicate, or reconstruct the work of others, I use their results as the basis for my own observations, conclusions, and recommendations presented herein.

ANALYSIS AND RECOMMENDATIONS

In the following list, I would like to frame my conclusions and recommendations regarding the existing operations, the existing facilities, and what the future process and facilities might include. To the informed and initiated, some of these items may go without saying, but, for completeness, I include the following:

(1) Town Administrative Offices need more and better space.

(2) The Fire and Rescue Department needs more and better space.

(3) The Police Department needs more and better space.

(4) The North Hampton Public Library needs more and better space.

(5) The building presently housing the Fire and Rescue Department and the condition and functional location (along with adjacency to the Police Department) indicate that, were it to be renovated and expanded, it could well serve the needs of the Fire and Rescue Department and the townspeople for years to come.

(6) The building presently housing the Police Department and the condition and functional location (along with adjacency to the Fire and Rescue Department) indicate that, were it to be renovated and expanded, it could well serve the needs of the Police Department and the townspeople for years to come.

(7) The existing building which presently houses the North Hampton Public Library does not well serve the needs of the NHPL, its staff, its patrons, and the townspeople.

(8) The NHPL should be housed in a new building, planned, programmed, designed, and built to accommodate the needs of the NHPL, going forward, in a time of changing needs for public libraries, based on a vision and mission of the NHPL and other public libraries in a world of these changing needs and technologies.

(9) The new NHPL building should be built on the town-owned "Homestead Site" in the southwest corner of the Municipal Campus. I expect that, like many town libraries, the mission and programming for a new Library building will include, among the important elements of the library, an expansion of their role as the cultural and community center of Town of North Hampton.

(10) The design, construction, and existing condition of the existing NHPL building make that building likely not amenable to an economically feasible renovation, without major compromises, to suit the needs of the North Hampton Town Offices, now and into the future.

(11) A new building, specifically planned, programmed, sited, and built to house the NH Town Administrative Offices, should be built on a site in the general location of the existing NHPL.

(13) The classic old stone Historical Town Office building should be preserved and reserved for special purposes as, e.g., the North Hampton Historical Society, and other

Town functions. Efforts could be undertaken (if not already) to place the building on the National Register of Historic Places.

(14) The historical old Town Hall building, recently renovated and restored, should continue to exist at its present site, to be used as a meeting hall and related functions, for which it is well suited. This building should be kept well maintained. Along with its principal uses, it could have flexible and beneficial uses, including use as "swing space" for other operations, as the variety of planned disciplined moves take place during periods of disruptions, dislocations, temporary accommodations, relocations, demolitions, renovations, and expansions take place in a series of actions over some period of time to create the Municipal Campus.

(15) Clearly, the implementation of a plan, which includes the elements summarized above, depends on the first moves to be initiated by the Board of Trustees of the North Hampton Public Library to secure the building site, to conclude a successful fund-raising campaign, to retaining an architectural firm (at least) through Programming and Schematic Design, and to campaign to convince the North Hampton townspeople that a new library building is something they want to help underwrite. It is my understanding that the Trustees are eager to move expeditiously with this project.

IMPLEMENTATION, MAINTENANCE, TIMING, AND SCHEDULING

The creation of a Municipal Campus, as envisioned here, will depend on the successful implementation of a well-reasoned overall timeline, along with a number of subset timelines representing each of the components described above. These subset timelines represent the needs and actions required for each of the various buildings, existing or new, that make up the overall Municipal Campus Plan.

The subset plans should include, among other things, plans for continued maintenance of existing buildings to ensure their continued availability and proper functionality to serve the needs of the various departments to serve their various public functions. The interim maintenance, depending on the details of each building and its particular needs while waiting in queue for its turn for renovation or replacement, should be considered and informed by the ultimate outcomes planned for that building and, in general, kept to a minimum as required only to bridge to the ultimate renovation and/or expansion or demolition. For example, electrical, plumbing, heating, cooling, and roofing repairs should take place as and when needed, based on function and life safety, but cosmetic issues like the repair or replacement of exterior wall plastic (vinyl) siding can be safely deferred to the ultimate resolution of that building.

THE WARRENSTREET PLAN

I like the Warrenstreet Plan. I like the scope, approach, and analysis of the Warrenstreet Architects study that leads them to propose the North Hampton Municipal Campus, Concept 1, albeit with some possible modifications or exceptions. I support the analysis and projections of the space-programming study for the various departments and buildings, and the likely projected costs for "construction costs" and "project costs" for each component. [The included cost analyses will need to be updated to include additional "escalation" costs to the dates projected for the construction start for each component; the three percent per year is a reasonable working number at this time].

I believe that further analysis could show that combining and integrating several elements from "Concept 2" into the basic "Concept 1," could be the basis for a more optimum solution at this time to serve the future needs of the Town of North Hampton. This would include not only a new Library building on the Homestead site but also a new Town Offices building on the present library site. I believe the existing library building, built on a concrete slab-on-grade, would need too much additional and costly renovation to make it suitable for a Town Offices building; this work would include costly replacement of the building's infrastructure, e.g., heating, plumbing, cooling, and electrical upgrades or replacement, along with windows, insulation, roofing(?), interior walls, floors, and finishes, etc… I see few redeeming features in this building. It may be more expedient and less costly to raze the existing building and replace it with a more architecturally-appropriate wood-frame building without having to compromise the result as related to size, function, and layout, and siting location as it relates to the neighboring buildings on the Municipal Campus. Further, the design and construction of such a new building would have the additional latitude of site layout, shape, footprint, and character to serve the particular architectural and functional needs for the Town Offices, for now and into the future.

I like the potential of trade-offs between some elements of Concept 2 that could be integrated into Concept 1. For example, if the footprints of the Fire and Rescue Department and Police Department buildings of Concept 1 were to be replaced by the footprints of Concept 2, along with a more rectangular or oblong building for the new Town Offices building on the current Library site, that would permit a traffic, parking, and circulation connection along the rear or northern portion of the Municipal campus. This could lead to different or better traffic entering/exiting patterns, possibly one-way, from Atlantic Avenue and from Alden Road.

I like the view and exposure of the elevations of the various buildings as seen from Atlantic Avenue.

I like the "New Memorial Garden" as depicted in Concept 1.

FURTHER CONSIDERATIONS, DEFINITIONS, EXPLANATIONS, AND ALTERNATIVES

Two-Story v. One-Story Buildings

I would like to raise a question about the apparent focus on one-story buildings. It may be that others know something about the geotechnical subsurface conditions at the various building-siting opportunities at the Municipal Campus, so as to preclude some of the siting possibilities. However, in this region of the country and with our climate, our buildings are best built on foundations that rest on footings that are at least four feet below grade. When bedrock exists at shallow depths, it is sometimes prudent to settle for a concrete slab-on-grade or slab-on-bedrock, forgoing the creation of a lower level or basement. Further, with our snow loads and concerns for architectural character, we typically have buildings with significant roof slopes. Thus, we have functional space to gain by having attics and basements, where possible, representing volumes of space that can be used to accommodate storage, infrastructure equipment, and often much more.

The number of stories in a building should be given further consideration. In the Municipal Campus, the question as I see it is whether the scale of the campus and its site, along with the purpose of the buildings, should have them be one story or two. Buildings of more than one story (with or without attic and/or basement) are more compact, have a smaller footprint, consume less energy to heat and cool, leave greater green space, and have construction efficiencies which often make them less costly to build. Consuming less building site, and preserving more green space, results in a more appealing welcoming site now, and leaves more potential building site available for future growth and expansion.

A two-story building would be less costly to build and operate. The specific cost difference would be determined by the layout, design details, construction materials, and more. Cost differences would be largely related to the extent of the foundations, roofs, exterior walls, insulation, plumbing-, heating-, cooling-, and electrical-systems. An elevator would be required for a two-story building, a cost usually not borne by a one-story building. However, even in a building where normal operations are expected to occur on one floor, it may be prudent to include an elevator. An elevator, whether in a one-story or two-story building, would be used to include access to the lower level or basement (if one exists) or to the attic (if one exists), creating good potential for access to equipment and storage in the present and short term, and for functional expansion in the future.

Further, two-story buildings may allow more alternatives for parking and vehicular and pedestrian circulation solutions that would serve the overall needs of the many activities on this campus. Clearly, there are trade-offs which should be posed and evaluated objectively. For example, one-story operations are said to be more easily staffed and monitored, as

many library directors would prefer, but at what other costs? Each building with its own needs, program, and character, deserves its own analysis.

I would estimate the overall cost savings of a two-story building, when compared to a one-story building, of a quality and design that I would expect to be considered for the North Hampton Municipal Campus, would be on the order of fifteen percent.

Construction cost, operating cost, and energy efficiency should be an important ingredient in most of the decisions that will affect the design details, choices of materials, and construction means and methods for each of the project components or phases, whether for new construction or renovations. The building committee(s) in North Hampton, representing each of these projects, should endeavor to engage architects and other design professionals, as well as builders in the various possible building modes, who share the same values and concerns.

One Building v. Two Buildings for NH Public Library and NH Town Offices

In a constructive wide-ranging discussion that accompanied a consideration of the Draft Report, the question was raised and briefly discussed about the possibility of accommodating the needs of the NH Public Library and the NH Town Offices in one larger new two-story, combined building. The single-building approach would present new siting and site-planning opportunities, would conserve precious Municipal Campus site space for more parking space now, if necessary, along with more site space for future expansion of building, circulation, and parking space. This approach deserves further serious study, particularly among those representing the two principal users – the Public Library and the Town Offices. There may be arguments against this happening, including organizational and administrative issues, about identity and the special role and autonomy of the Public Library and its Board of Trustees, about the affect on the upcoming fund raising capital campaign, and likely other issues to be identified, discussed, and reconciled.

If sufficient interest and possible support were to exist, I believe that a detailed study would show that other benefits would accrue to the Town as related to the costs of building planning, siting, programming, and design, as well as the cost of construction and the continuing costs of operations. Construction economies would include the costs associated with building size, possibly-shared spaces and meeting rooms, exterior circulation, interior circulation, foundations, roofs, exterior walls, insulation, elevator(s), heating, cooling, plumbing, electrical service, along with operational costs. On the other hand, the Trustees or others may see a need to demonstrate that the North Hampton Public Library is not a Town department but has a special role, by statute, and that, within the State and Community, that is best fulfilled and demonstrated by a separate uniquely-identified stand-alone building that would best represent that status.

A combined building would need to be planned, programmed, and designed with great care to assure that the programmatic needs, functions, and operations of each tenant were not compromised. Such a building could have two separate entrances, one for each principal tenant, or one exterior entrance with a shared lobby or a shared portico. It could have shared elevator(s), shared meeting room(s), shared equipment room(s), shared infrastructure, and perhaps more. However, this approach would need to be developed with some caution as the size of this combined building, although likely to be more efficient than two separate buildings, might produce a building of a size and appearance that would be out of scale with the neighboring buildings in the Municipal Campus.

A possible bonus of this approach would be that this "combined building" could be sited in a fashion where it would connect, physically and functionally, to the Historical Town Office Building (the original Library Building). In so doing, the major new building would pay homage to the special historic building by integrating its use into the overall Town program, thereby giving it the stewardship attention, oversight, care, maintenance, and upkeep that would keep it relevant through its daily use. This approach would bring on a new architectural challenge that would require an architecturally-sensitive, meaningful, functional, cost-effective design that would keep the historic building from looking like an artifact or irrational appendage.

Fire/Rescue Department Building Needs

Considering that the Fire/Rescue Department building needs additional space, along with the need for further structural evaluation and likely repair, I believe it would be wise to seriously consider what overall constructive changes could be accomplished which would permit an expansion of the space available on the upper level of the F/R building, thus allowing for a large increase in space, now and future, with only a limited increase in the size of the building footprint. Thus, for example, a single new apparatus bay would be added at the ground level for additional apparatus, whereas other needed space additions to the F/R Department would be accomplished by adding to what would be made available on the second floor, plus what may be reallocated in a space reallocation between the F/R and Police Departments as the Police Department would occupy space on the second floor of the PD Department building that would be vacated by the Town Offices as they move into their own new building.

Building Committee

The "Building Committee," composed of a number of townspeople, and perhaps others representing the town's interests, typically would be involved in the search for and selection of an architectural or architectural/engineering (A/E) firm, the development of the

contractual documents for engaging that firm, the many reviews and decisions that will need to be made at the many stages related to the work of that firm, keeping the project goals, expectations, and budget in mind. This work would include the development of the Program, the Schematic Design, the Design Development, and the Construction Documents for each building project, reporting to the Select Board and the Townspeople on a regular basis, and finally approving the final design as represented by the Construction Documents.

The Committee responsibilities will continue with the selection of a project delivery system, the search for qualified builders, working with the A/E firm to prepare the bidding documents (or other documents peculiar to the selection process), selecting the successful builder, overseeing and project-managing the building process, overseeing the work of the project manager and the clerk-of-the-works, approving the payment requisitions, making material and color choices, preparing a punch list, assuring that all items on the punch list will be addressed satisfactorily, receiving as-built drawings of the building project, signing off on a completed project, and receiving a Certificate of Occupancy.

Building Consultant

A "Building Consultant" is a very general term, little used in the design and construction industry, but sometimes used by a client or owner of a building project which is proposed to be built. The detailed scope of work of this Consultant could be defined as narrowly or broadly as the needs and desires that would be dictated by the owner, the Town, or the Building Committee. This position is sometimes used where the strengths or time commitments are not otherwise available among the members of the Building Committee. This person would be chosen based on some combination of his/her experience with programming, planning, fund-raising, designing, detailing, furnishing, equipping, financial-managing, and building-constructing of buildings of the type envisioned. He/she would/could be the resource person, decision-maker, facilitator, expeditor, signatory, reporter, etc., for any/all aspects of the project, depending, again, on the scope defined for his/her role as a "Building Consultant." He/she could be assigned or delegated much of the authority and many of the responsibilities normally assigned to the "Project Manager" and/or "Owner's Representative."

Building Material Options and Trade-Offs

Considering the costs associated with the building construction of institutional-quality building types that are likely to be part of the Municipal Campus, I find that a variety of alternatives exist for consideration. The building walls are likely to be wood-framed or light-gauge steel-framed. The roof framing is likely to be wood-framed or light-gauge steel-framed. The flooring framing is likely to be wood-framed or steel-framed with concrete topping on light-gauge flooring deck. The roof is likely to be architectural asphalt shingles,

but natural slate should also be considered, say, for example, for the Public Library. The exterior wall finishes are likely to be wood clapboards, but stone- or brick-veneer masonry should also be considered.

It is premature to get into a long, detailed, hypothetical discussion here, based on a large number of permutations and combinations of all of these choices listed above; this number will increase with the added number of combinations as their number expands with the additional parameters of one- or two-story buildings, and single stand-alone or combined buildings (e.g., as with the Town Offices and Public Library). Each of these possible combinations, which might be of interest, would need to be evaluated in the context of available budget, architectural aesthetics, functionality, durability, sustainability, and first-cost v. repair-and-replacement-frequency cost analyses. I believe that the range of choices represented here would result in a variation of the cost of building construction in the range of twenty percent.

I should point out here that these are among the many choices and decisions that should be within the province of responsibility, depending on how the project is organized, of the Building Committee, the Building Consultant, and/or the Project Manager, working closely with the A/E team throughout the design process and its many phases.

Sustainable, Green, and LEED Practices

The details of design, demolition, choice of construction materials, choice of means and methods of construction, operations of building systems, and how these choices satisfy the desires and best practices for sustainable, "green," and LEED-Certified construction is an important consideration in the design and construction industry. This matter and the degree of importance for each building project should be a subject for serious discussion for the Building Committee, for candidate firms in the A/E search and selection process, and for candidate firms in the GC or other builder firm search and selection process. Costs and cost/benefit analyses should be discussed and evaluated during the various A/E design phases, and during the decision making regarding design details and the means and methods associated with the use of various materials. The successful outcomes will depend on the shared values of the owners, owners' representative(s), and the design and construction principals.

The "Certification" of the LEED-Certification process can be daunting. Some A/E firms and their clients choose to design and build to certain LEED-certification standards, while forgoing the certification process itself.

Project Cost v. Construction Cost

As the Town, its officers, its townspeople, and building committee(s), and/or building consultant(s), contemplate the Municipal Campus and raising and budgeting the funds necessary to pursue the implementation of any specific building project(s), it should be kept in mind that all too often, the "Project Cost" is not well understood as distinguished from the "Construction Cost." The "Construction Cost," sometimes called the "hard cost," includes the cost of the building construction, site development, utilities, landscaping, appliances and equipment, and owner's contingency.

The "Project Cost" is the grand total that includes the Construction Cost plus the A/E design fees, geotechnical fees, all other sub-consultant fees, project manager costs, building consultant (if any) costs, testing costs, clerk-of-the-works costs, insurance, legal fees, permitting fees and costs, administrative costs, special inspections, and commissioning (if required by contract). Typically, these additional costs are some fifteen percent of the construction costs.

THE PHASES OF ARCHITECTURAL DESIGN

SUMMARY (from the AIA)

A client's unfamiliarity with the process of architectural design should not hinder that client's comprehension of the phases of design services. This Best Practice introduces first-time clients to the common services of architectural design and the process of design-bid-build.

Note: The deliverables listed below are examples of common architectural deliverables for each phase but are not required of AIA members.

SCHEMATIC DESIGN PHASE SERVICES

During the first phase—schematic design—an architect consults with the owner to determine project goals and requirements. Often this determines the program for the project.

The program, or architectural program, is the term used to define the required functions of the project. It should include estimated square footage of each usage type and any other elements that achieve the project goals.

During schematic design, an architect commonly develops study drawings, documents, or other media that illustrate the concepts of the design and include spatial relationships, scale, and form for the owner to review. Schematic design also is the research phase of the project, when zoning requirements or jurisdictional restrictions are discovered and addressed.

This phase produces a final schematic design, to which the owner agrees after consultation and discussions with the architect. Costs are estimated based on overall project volume. The design then moves forward to the design development phase.

Deliverables: Schematic design often produces a site plan, floor plan(s), sections, an elevation, and other illustrative materials; computer images, renderings, or models. Typically the drawings include overall dimensions, and a construction cost is estimated. Note: The contract may actually spell out what is to be delivered.

DESIGN DEVELOPMENT PHASE SERVICES

Design development (DD) services use the initial design documents from the schematic phase and take them one step further. This phase lays out mechanical, electrical, plumbing, structural, and architectural details.

Typically referred to as DD, this phase results in drawings that often specify design elements such as material types and location of windows and doors. The level of detail provided in the DD phase is determined by the owner's request and the project requirements. The DD phase often ends with a formal presentation to, and approval by, the owner.

Deliverables: Design development often produces floor plans, sections, and elevations with full dimensions. These drawings typically include door and window details and outline material specifications.

CONSTRUCTION DOCUMENT PHASE SERVICES

The next phase is construction documents (CDs). Once the owner and architect are satisfied with the documents produced during DD, the architect moves forward and produces drawings with greater detail. These drawings typically include specifications for construction details and materials.

Once CDs are satisfactorily produced, the architect sends them to contractors for pricing or bidding, if part of the contract. The level of detail in CDs may vary depending on the owner's preference. If the CD set is not 100-percent complete, this is noted on the CD set when it is sent out for bid. This phase results in the contractors' final estimate of project costs. To learn more about the most common ways owners select a contractor, see Best Practice 05.03.01, "Qualifications-Based vs. Low-Bid Contractor Selection."

Deliverables: The construction document phase produces a set of drawings that include all pertinent information required for the contractor to price and build the project.

PROJECT DELIVERY ALTERNATIVES

There are several project delivery alternatives available for most design and construction projects of the kind being considered here. Each approach has advantages and disadvantages. The alternative approaches are generally categorized as listed below. Each can have other variations, as well. The particular mode of project delivery is often tailored to suit the nature of the project, new or renovation, straightforward or complex, tight budget or otherwise, tight timeline or otherwise, etc… The choice can often determine the degree of success to the eventual project outcome.

(1) Traditional Design, Bid, Build

An architect is retained to plan, program, and design a complete, well-coordinated

set of drawings through several stages: Schematic Design, Design Development, and Construction Documents (Drawings and Specifications), and may be further retained for Construction Administration functions.

The Owner, or owner's representative, issues invitations to competing qualified General Contractors (GC), to submit sealed fixed-price, lump-sum bids, to complete the building of the project or building within the specified period of time. The project would normally be awarded to the low, previously-qualified bidder, GC, unless flaws are found in the bidding package.

Construction by the GC would proceed on a fixed agreed price and timeline.

(2) Construction Management

Design, typically, would proceed as above, although sometimes the Construction Management (CM) firm is chosen before the architectural design is complete. The Construction Manager, solicits and receives bids from subcontractors for each piece of the work, behaving more like an employee or agent of the Owner; typically, the CM has nothing at risk, and, concomitantly, less incentive to perform as a General Contractor would in (1) above. There are variations of this approach, including CM as Advisor; CM-at-Risk with Guaranteed Maximum Price (GMP); and CM as Advisor (Prime, Trade Contracting).

(3) Design/Build

In this variation, the Owner starts with a building concept or building program, a set of design guidelines, and a likely fixed budget. The owner would invite interested architects and builders to form design/build teams, where each team would prepare and submit proposed design solutions designed to accomplish the Owners program and timeline within the Owner's fixed budget. The Design/Build process is essentially a competition of Design/Build teams competing with their proposals. The winning Design/Build proposal is selected. The Construction Documents are completed. Construction proceeds on the agreed timeline and fixed budget. .

TIMELINES

Tentative representative timelines have been schematically determined for each of the phases of the work proposed to implement the Municipal Campus for the Town of North Hampton. See Timeline Chart attached.

GRAPHICS See proposed alternative arrangements for the Municipal Campus, attached.

APPENDIX

Friday, February 24, 2012

Phillip Wilson, Member of the Select Board
and Chair of the Capital Improvement Projects Committee
Town of North Hampton

Dear Phil,

In response to your request, for your consideration, I submit the following Proposal to the Town of North Hampton.

I have reviewed all of the materials provided to me, including studies and reports prepared by various department heads and outside consultants, have digested the substance of our several meetings, and have done a cursory guided tour of most of the municipal buildings in the central municipal core of the Town of North Hampton.

To proceed with this study, I would perform a more complete review and assessment of the substance of all available documents and study reports in my possession, consider and evaluate various options for going forward, and prepare a written report to address the most relevant issues facing the Town of North Hampton as I understand them, as they have been defined and delineated, and as they relate to the discussions we have had. The following questions would be further addressed:

1) To what extent is it more reasonable to renovate existing buildings than to build new buildings?

2) If new buildings are to be built, how should maintenance of existing buildings be dealt with in the meantime, as various renewal, rehabilitation, expansion, demolition, and new construction projects are phased over some period of time?

3) What is my assessment of the Warrenstreet proposals?

My report will include the conditions and needs of the existing buildings, to the extent that I know them, their functional and adjacency relationships to one another, the programmatic needs known to exist for the various departments as well as for the North Hampton Town Library. These factors will be viewed against a backdrop of the consequences, constraints, and overall impacts, while trying to minimize disruptions of overall municipal functions and their possible negative effects on functions, staff, residents and patrons; the overall goal

and plan would be to achieve these major physical improvements while maintaining a reasonable, affordable, and achievable timeline.

The Town of North Hampton, because of the planning, programming studies, analyses, and visioning that have gone before, is in a unique position to focus on the associated opportunities, as well as the needs, that can come from the existence of this collection of municipal buildings and land in a nicely defined municipal neighborhood in the core of the Town. Few towns have, and have had, this opportunity, particularly where North Hampton has the benefit and flexibility which the now-vacant homestead property, with its contiguous land and frontage on Atlantic Avenue, adds to the mix. This should permit the creation of an enhanced set of more sustainable buildings in a municipal campus, more architecturally attractive, user-friendly, and functional, to better serve the needs of the departmental functions, staffs, and officers, but, even more importantly, to better serve the residents, patrons, and taxpayers for years to come.

In my judgment, this is a great opportunity for the Town of North Hampton to reinforce their vision and the reality of the municipal campus. For me, as a practicing professional with experience in planning, programming, architecture, engineering, building construction, and property management, I see this as an opportunity to contribute to helping those in an attractive neighboring seacoast town achieve an even better place.

To the extent that you are interested, I look forward to working with you and the Town of North Hampton, and on your behalf. If you should have any questions about any of this, please do not hesitate to let me know.

Thank you for inviting me to submit this proposal.

Sincerely, and Best Regards,

Victor

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cc : Stephen Fournier, Town Administrator